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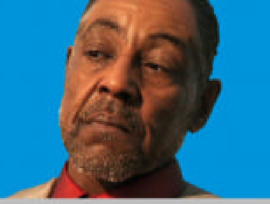

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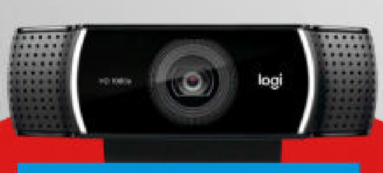

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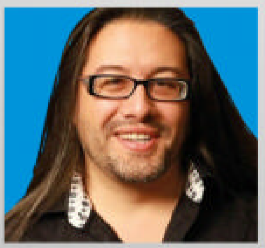
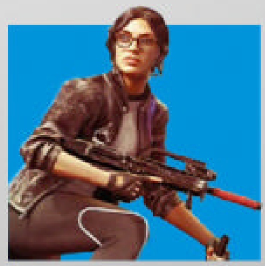


JOHN ROMERO

HOW D&D INSPIRED DOOM AND QUAKE



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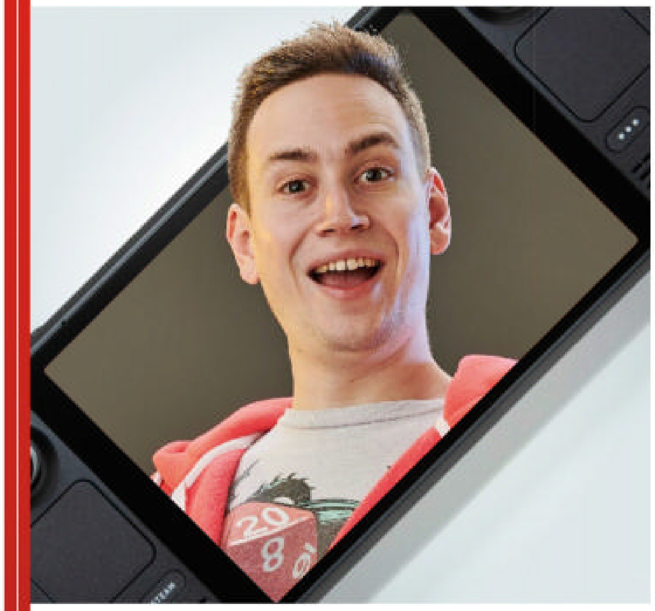
"IT COULD BE A HUGE STEP FORWARD… OR A VERY COSTLY STUMBLE"



ROBIN VALENTINE
Twitter
@robinlvalentine
This month
Held all sorts of things in his hands without Valve's assistance.

Well now, it's not often we get to put a console on the cover, is it? OK, technically it's more of a handheld PC, but whatever it is, it feels like it could be a huge step forward for this hobby of ours… or a very costly stumble. Across our huge feature, we've broken down absolutely everything you need to know, informed by a hands-on at Valve's offices, a chat with the device's developers, a full run through the technical specs, and a dash of expert opinion.

I just hope that in a world where you can play your entire Steam library on the bus, you'll still find time to read a magazine...

Robin

ROBIN VALENTINE
PRINT EDITOR
robin.valentine@futurenet.com

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The PC Gamer team

WES FENLON
Twitter
@wesleyfenlon
This month
Actually held the Deck in his grubby little hands. Er, sorry, his anti-bac washed little hands.

DAVE JAMES
Twitter
@Not_the_GK
This month
Added his hardware know-how to the feature with a bunch of words I don't understand.

MORGAN PARK
Twitter
@MorganRPark
This month
Between *CoD* and *Hell Let Loose*, spent more time in WWII than is strictly healthy.

RACHEL WATTS
Twitter
@rachel_wattts
This month
Kept telling us how much she loves dinosaurs. (That's what she calls anyone over 30.)

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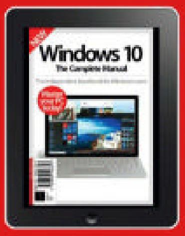
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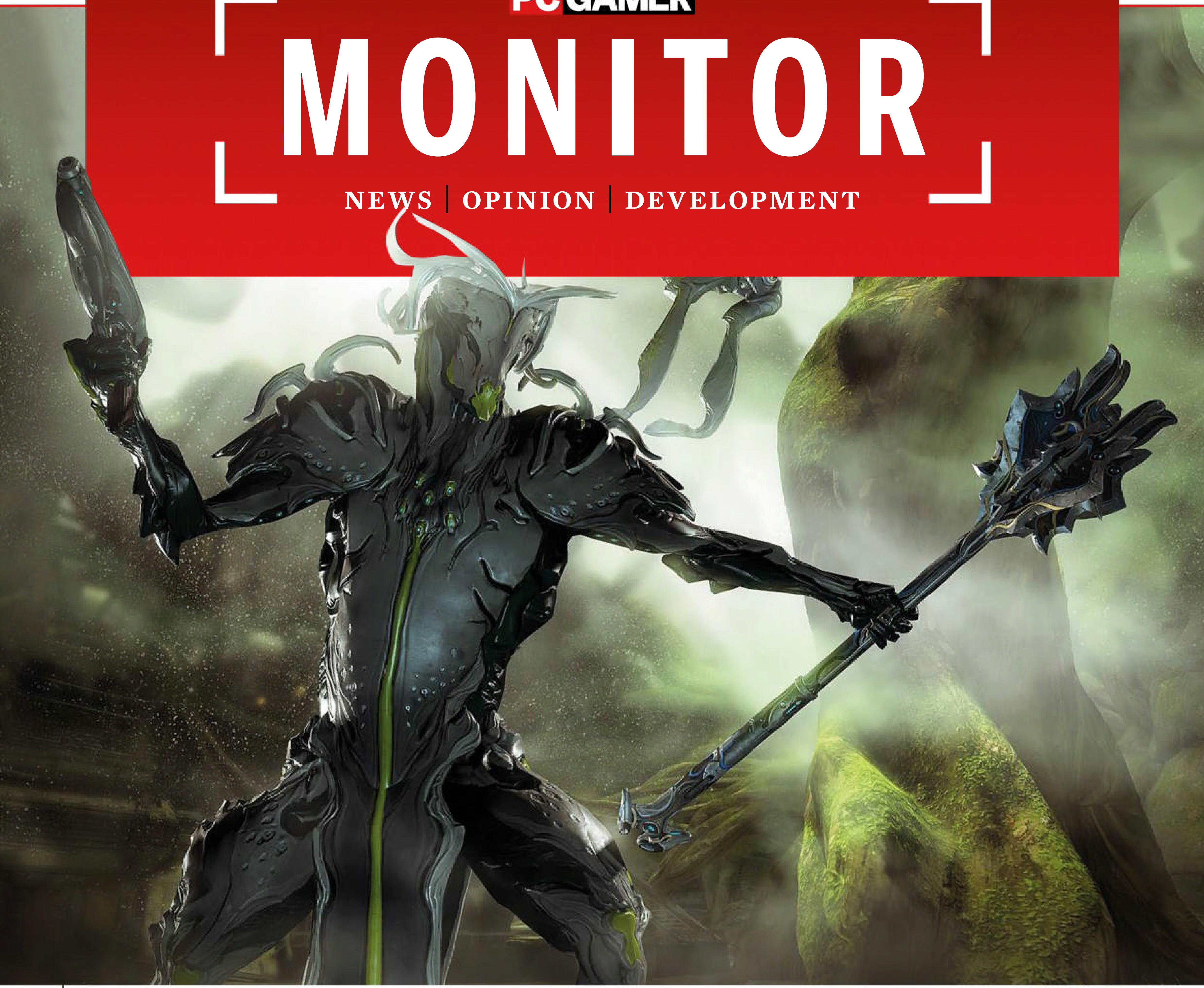


Many of Fajardo's earlier *Warframe* submissions were rejected. "I think I've already set some of [my older work] to private," Fajardo says. "Some are really just put together for the sake of submitting, I was so bad at designing stuff!"

NICE FRAMES BRO

An artist funded his sister's degree and added a floor to his parents' house with WARFRAME skins

Digital Extremes' *Warframe* is a live service game which makes money largely through cosmetics, and the developer embraces community content. In 2015 it started a competition called TennoGen, where artists can submit cosmetic designs for inclusion in the game. If the work makes it, the artist gets a 30% cut.

It can result in a life-changing amount of money. Lendel Fajardo (LED2012 online) is one such creator who has spent six years working on *Warframe* creations.

Fajardo's first submission was rejected, which only made him more determined. "I started reading and watching tutorials on the processes in making 3D assets," Fajardo says. "I kept trying but I couldn't seem to handle how to properly design helmets and full skins so I focused more on Syandanas [capes]."

> **I WAS EARNING TEN TIMES, SOMETIMES EVEN MORE, THAN WHAT MY MOM EARNS**

What made the difference was working and building outfits with others. Fajardo had his first item accepted in the next round. He used the money to upgrade his "ancient desktop", because money was tight and "I had to make a move".

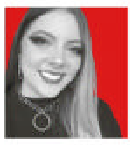
YOU'VE BEEN FRAMED

Over time Fajardo had more and more cosmetics accepted – and was getting better at designing. Suddenly, this wasn't a sideline but a sizeable regular income.

"I was earning ten times, sometimes even more, than what my mom earns, so now I just handle the expenses," says Fajardo.

DUMP TRUCK

LET THEM EAT CAKE

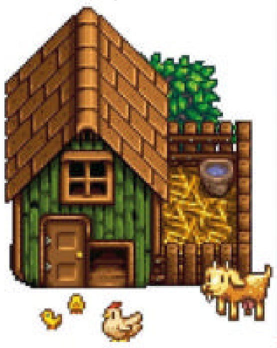


Pyramid Head's booty has been a hot topic in the *Dead By Daylight* community since his addition – did Behaviour Interactive nerf his derriere before he released? Nobody truly knows, but his butt did get buffed in a recent patch after one of his outfits was clipping and giving the appearance of a flatter rear. ■ ***MT***

BUMPER CROP

FARMING IS NOW SORT-OF AN ESPORT

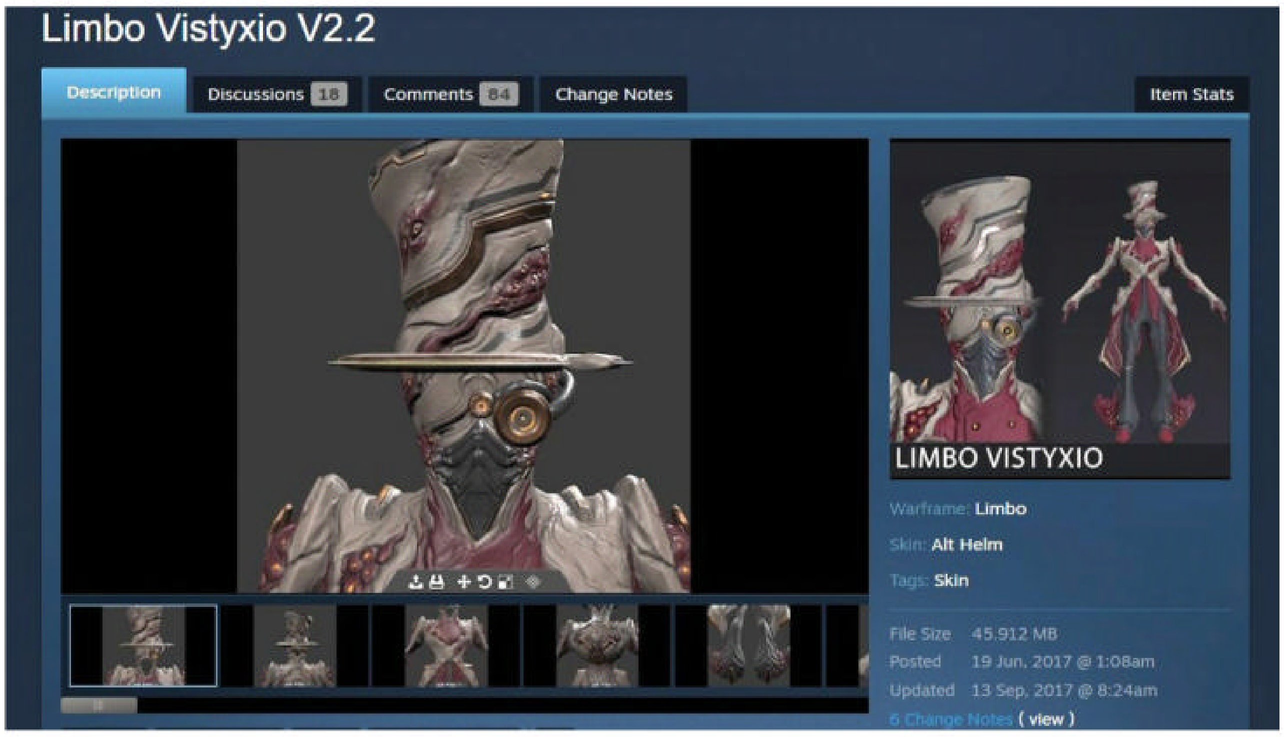
Developer ConcernedApe has announced the first official *Stardew Valley* Cup tournament. In collaboration with streamer UnsurpassableZ, the competition will see teams of community figures and players face off in over 100 different farming challenges for a $40,000 prize pool. ■ ***RW***



TIME 2 HACK

THIEVES NEVER PROSPER

A cryptocurrency platform was recently hacked to the tune of $600m. Surely someone's getting fired for that, right? No, someone's getting hired actually. The hacker has been offered a job and $500k after giving back most of the cash, which just goes to show crime does pay, and it includes dental. ■ ***JR***

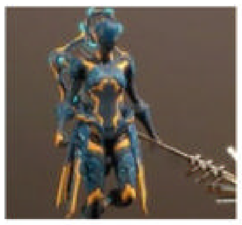


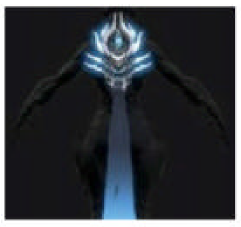
Limbo Vistyxio V2.2

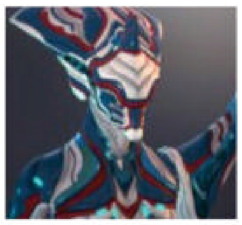
LIMBO VISTYXIO

Warframe: Limbo
Skin: Alt Helm
Tags: Skin

File Size 45.912 MB
Posted 19 Jun, 2017 @ 1:08am
Updated 13 Sep, 2017 @ 8:24am
6 Change Notes (view)







Fajardo wasn't a complete neophyte: he dropped out of college while studying front and backend web design, which was where he was first introduced to free open source 3D modelling software Blender.

It became enough to fund major changes: Fajardo paid to renovate his parents' house, adding another floor. He bought two condos and some land. *Warframe* skins even paid for emergency food parcels during COVID-19.

"Crazy year, sudden lockdowns and most of the neighbours are out of money, out of jobs, and the local government's plan for the food wasn't there yet, so when my mom approached me about giving food to the neighbours I just agreed and arranged it immediately," Fajardo says. "A few kilos of rice per person wasn't enough but it helps while we all wait for the local govt."

Fajardo hopes to work in the industry. His elder brother left college to learn the ways of skin-making, his younger brother is in senior school, and his sister is finishing medical school (all of which Fajardo pays for).

"I think if I just gave up five to six years ago on *Warframe*, me and my family would be starving during the pandemic," says Fajardo. "I'm so grateful for the TennoGen program, it gave me a direction, a path even after the downward spiral I faced. Whenever I see someone wearing my Syandanas, whether hanging out in the relay or I'm playing a mission with them in a squad, there's just that crazy, happy feeling that's reminiscent of the first time I saw my work in-game."

Rich Stanton

Highs & Lows

HIGHS

Epic Spend
Epic's spent $500 million on the Epic Store so far, and doesn't expect it to turn a profit till 2027.

EA Does Good (Really)
EA made an Accessibility First Patent Pledge so other developers are free to copy them.

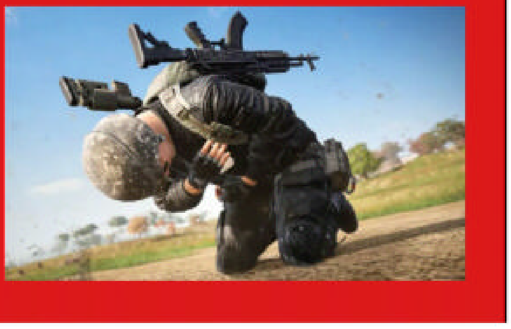
A Grande Old Time
Fortnite saw players enjoying an Ariana Grande concert. So that's nice.

Stranger Deals
Dead by Daylight's Stranger Things crossover will be removed from the game in November.

Cyberfunk
CDPR continues to doggedly patch *Cyberpunk 2077*, but patch 1.3 faced a backlash at the lack of changes.

PlayerUnknown's Battlegrounds: Battlegrounds
PUBG has now been officially renamed as *PUBG: Battlegrounds*.

LOWS



The Spy

BUT WHO WATCHES THE SPY?

Despite what you might think given the whole espionage thing, The Spy is unflinchingly lawful. In the early 2000s, The Spy would sit nodding along to the Motion Picture Association's anti-piracy videos, enjoying the thrill of climbing up on a high horse and galloping, hair down, through the rolling hills of moral superiority. Of *course* The Spy wouldn't steal a car. Sure, yes, The Spy has occasionally requisitioned a car during a tense cat-and-mouse chase – what spy hasn't? – but The Spy *always* ensures it's returned to its rightful owner, at least after all the pieces have been recovered.

THE SPY
The Spy wouldn't steal a magazine.

Steal a handbag? The Spy? Never. OK, fine, there was that time in '97 when The Spy misunderstood some dead drop instructions. Still, The Spy maintains that 'accidentally acquiring a handbag that you have no business owning' is legally distinct from theft – and is still annoyed that the subsequent police investigation so clearly disagreed.

Steal a television? Why would The Spy even bother? The important target is the hard drive of the device the television is attached to – you'd have to be a rank amateur to take the monitor instead. Leave the cables as well, The Spy has loads. And as for stealing a movie, as far as The Spy is aware, security camera footage is not yet recognised by BAFTA, so The Spy is in the clear there too.

And yet despite The Spy's own efforts to be an upstanding citizen, the public remains fascinated by crime. Why else would The Spy be constantly forced to investigate *Grand Theft Auto* rumours for this page? The latest, fortunately, isn't some outlandish claim about the existence or otherwise of *GTA VI*. Instead, it seems, Rockstar is stealing from its own past.

REMASTER CRIMINAL

In a recent investor presentation, Take-Two Interactive revealed that it would publish three unannounced "iterations of previously released titles". Now, Kotaku is claiming that – according to its sources – said titles will in fact be remastered versions of three classic *GTA* games. This *GTA Remastered Trilogy* would include *GTA III*, *GTA Vice City* and *GTA San Andreas*.

Kotaku goes on to claim that the remasters are being led by Rockstar Dundee – formerly Ruffian Games of *Crackdown 3* fame – who is also reportedly helping with the upcoming 'next-gen' console release of *GTA V*, due later this year. According to the site's sources, the *Remastered Trilogy* uses the Unreal Engine, and will utilise a mix of new and old graphics, as well as an updated UI that nevertheless retains its classic style.

Arguably one of the biggest pieces of evidence supporting Kotaku's claims comes from Take-Two itself, who sent a spate of DMCA takedown requests for *GTA* mods that recreate locations from its previous games. One of these mods – *GTA: Underground* – was first released in 2005. So why would Take-Two only now start to care if not for an impending remaster release?

According to Kotaku's sources, there's a chance that the first *Red Dead Redemption* – which never came to PC – could also receive a remaster, depending on the performance of this first slate of re-releases. Supposedly the *GTA Remastered Trilogy* is planned for late October, early November, although Kotaku notes that there's a chance the PC versions will slip to next year. Perhaps Rockstar is worried about piracy, but come on now… you wouldn't steal a crime sim. Would you? Spy out. ■

The Spy

INSTEAD, IT SEEMS, ROCKSTAR IS STEALING FROM ITS OWN PAST

This month in… 2011

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THE GREAT ESCAPE

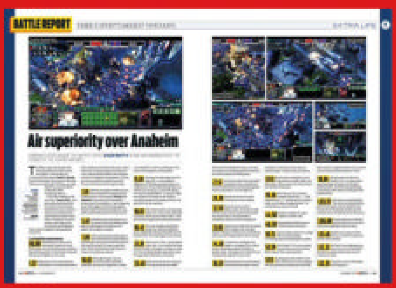
1 To celebrate the death of the cover disc, this month's PCG is a 196-page special. It's headlined by Tom Francis' hands-on impressions of *Skyrim*: a massive, ten-page exploration of, well, exploration. Faced with the opening main quest, Tom instead turns in the other direction and decides to head to Riften. Much like many of our actual playthroughs, no doubt.

ISSUE
232, November 2011

ON THE COVER
The Elder Scrolls V: Skyrim

IN THE CINEMAS
Tinker Tailor Soldier Spy

2 *Dead Island* is our lead review, receiving 82%. But it's overshadowed by the biggest and best release of the month: *OMSI*, a 90%-scoring bus driving sim.



3 The added page count leads to an expanded Extra Life section. It's mostly the same selection of regulars as today – Reinstall, Now Playing, and Update all appear – but a few features didn't quite stand the test of time. Battle Report is a play-by-play write-up of an esports match across a two-page spread. An interesting idea, but one that didn't last.

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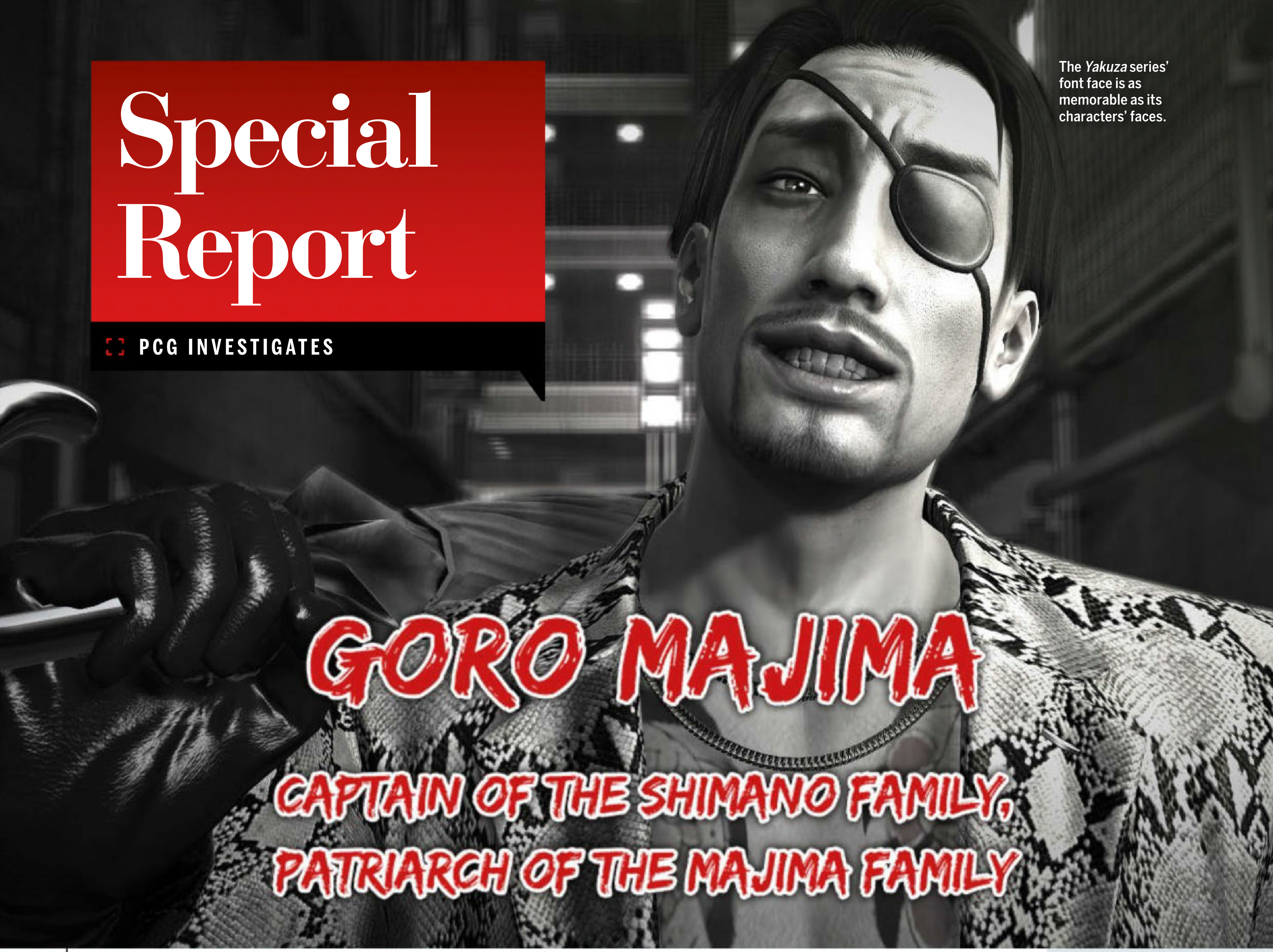

GORO MAJIMA
CAPTAIN OF THE SHIMANO FAMILY,
PATRIARCH OF THE MAJIMA FAMILY

The *Yakuza* series' font face is as memorable as its characters' faces.

FONT AND CENTRE

The tricky art of choosing a game's font face

After long getting by with the ported mobile versions of the early *Final Fantasy* games, at last Square Enix announced it would treat PC players to proper remasters. When we finally got a look at the *Final Fantasy Pixel Remasters* though, the reactions quickly got chaotic. What fans focused on in the first trailer wasn't the refreshed pixel art or newly arranged classic songs, but the tragically condensed sans-serif font that left awkward amounts of blank space in menus and text boxes. It was indeed difficult to ignore. A dozen font-replacement mods were online just days after launch.

How does such a small (but clearly vital) decision go wrong? And who actually chooses the fonts that games use? "It really depends on the game and the team," says John Ricciardi, co-founder of localisation company 8-4, who's worked with the likes of Nintendo, Bandai Namco, and Square Enix. "We've worked on games where we (as the outsourced localisation house) were asked to suggest fonts ourselves, and we've worked on games where the Japanese devs had already picked out fonts before we got involved. Sometimes that works out great, and sometimes the fonts chosen are... not the most ideal for the West, and we need to speak up."

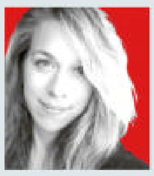
MAKING AN IMPACT

"I almost always take the chance to ask if I can choose the font," says Brittany Avery, a localisation editor previously with XSEED who now works with Nexon. "If they say no, then that's that, but if they say yes, then I get to have fun!" Avery has experience localising games for smaller screens like the PlayStation Portable, but when a game is coming to PC it means more screen space to play around with.

"Legibility is still important, of course, but I think for [PC games], you can also afford to get more creative and bold," she says. One of her favourite font choices was for *Corpse Party* on PC. In fitting with the theme, Avery really wanted to include a font that would look like coagulating blood. The font she chose for the top of the 'Victims' screen in the game definitely gets that gory feel across...

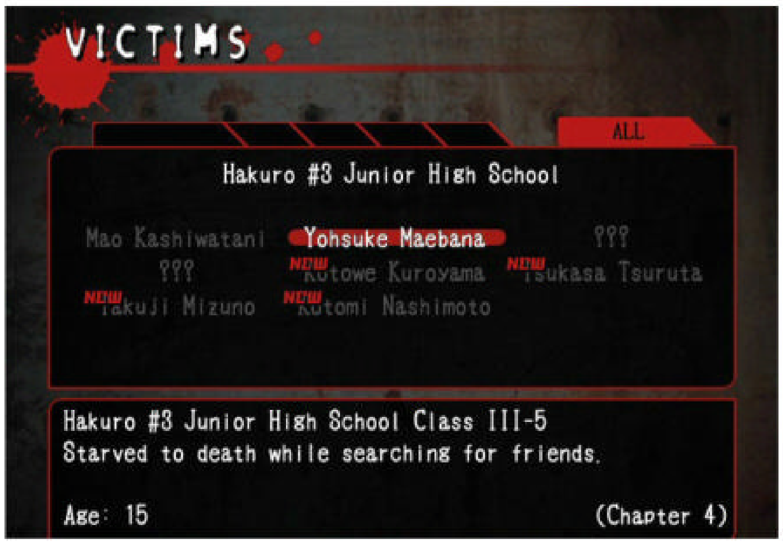
Another bold choice that caught my eye recently was for the raccoon detective game *Backbone*. After years of showing work in progress, developer Eggnut posted a screenshot of the game's new dialogue window that made its text-heavy interface look just as sleek as its modernised pixel art.

"The font had to be expressive, but not too much, so as not to interfere with the player's reading speed," says *Backbone*'s UI designer Aleksander Kolchin, conscious of



Dropdown expanded

For a UI designer, the decisions don't end with the font face choice. "Font size, typeface, line spacing, tracking and kerning, padding and margins, colour, visual hierarchy, and the presence of other elements," are all considerations for designing a text-based interface, says Aleksander Kolchin.

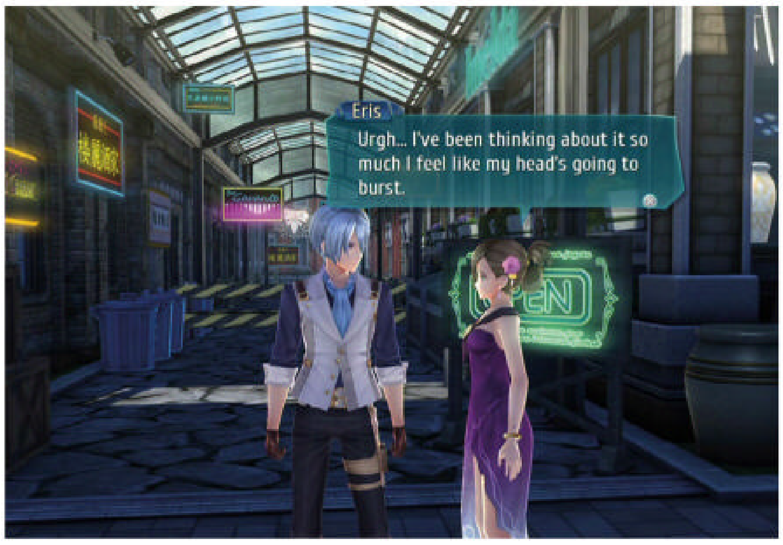


Hakuro #3 Junior High School

Mao Kashiwatani Yohsuke Maebana ???
??? NEW Kotowe Kuroyama NEW Tsukasa Tsuruta
NEW Takuji Mizuno NEW Kutomi Nashimoto

Hakuro #3 Junior High School Class III-5
Starved to death while searching for friends.

Age: 15 (Chapter 4)

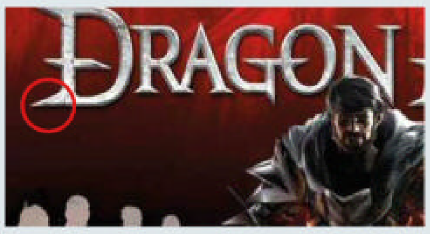


Eris
Urgh... I've been thinking about it so much I feel like my head's going to burst.

FAR LEFT: *Corpse Party*'s bloody 'Victims' font sets the mood nicely.

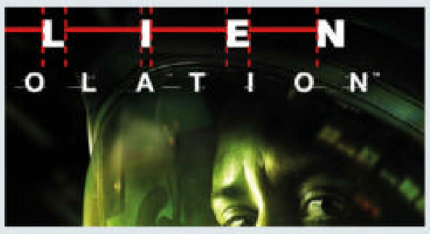
LEFT: Cuprum is still a series mainstay as of *Trails of Cold Steel IV.*

LETTER LINGO *Some words for word designs*



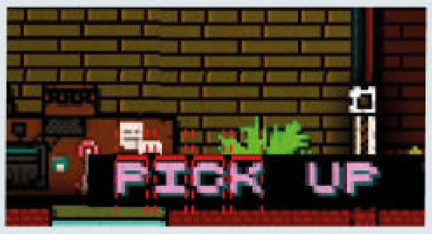
SERIFS

A font's fancy feet. Sans-serif fonts don't have them (the French for 'without' is 'sans' don't you know).



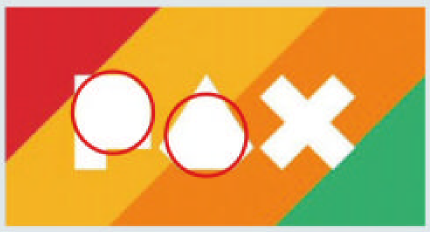
TRACKING

The standard space between all letters. Not to be confused with the kerning between just two letters.



MONOWIDTH

A font where every letter is designed to take up the same amount of space, even an 'I' and 'm'.



FILLED COUNTERS

When isolated negative space within a letter such as 'O' or 'P' is filled solid. But not 'A' for some reason.

how much text players would be hit with throughout the game. "*Backbone*'s pixel art is a fresh take on the medium that's very far from the retro aesthetic, so choosing a font was never about evoking a retro feel. Instead, we wanted to emphasise the spirit of the perceived time period when the events of the game take place, which is '50s Northern America." They wound up choosing Futura, a geometric sans-serif font with bold, simple shapes that gave Backbone's dialogue a clean, minimalist feel.

SOMETIMES A FONT FACE ALSO BECOMES THE FACE OF A SERIES

Sometimes a font face also becomes the face of a series. This happened for Avery with the *The Legend of Heroes: Trails of Cold Steel*, which was localised into English in 2015 and then brought to PC in 2017.

"When XSEED first worked on *Trails of Cold Steel* I went through the whole creative process of choosing a font before settling on Cuprum," Avery says. "It was legible, sleek and the letters were on the thin side, allowing for more space. Nihon Falcom was totally cool with the choice and implemented it into the game."

That may have been the end of a job well done for Avery and for the Cuprum font, but that decision had staying power. Years later, Avery saw screenshots for the English language version of a totally different Nihon Falcom game, *Tokyo Xanadu*, and there was that Cuprum font again. "I had a good laugh over the fact that Falcom just kept it going," Avery says.

It didn't end with *Tokyo Xanadu*, even. You can spot Cuprum in *Trails of Cold Steel III* and *IV* and more. "Such a seemingly simple decision on my part has spanned seven games so far... just wild."

LOOKING TO THE FUTURA

Teams may be relatively free to choose font faces based on aesthetics nowadays, but it wasn't always so simple. Years ago, they had to plan for the worst, says Sega localisation producer Scott Strichart. "You'd ask the developer to fill a text box with Ws – the largest letter – to see what the worst-case scenario for that font would be." There's always that one person that names their character 'WWWW' isn't there?

One game could fit only two lines and 24 characters. "That's nothing by today's standards, and at that length, you really have to start chopping out flavour in favour of critical context, which sucks." *Yakuza 0*, whose localised version first launched in 2017, Strichart says allowed about three lines with forty characters. "You could practically write a novel by comparison."

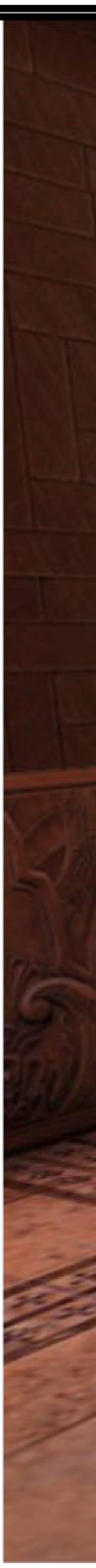
Space is no longer the major issue it once was. "Modern challenges of fonts are mostly solved," Strichart says. Now, though, developers are also considering localising into even more languages like Russian, Arabic, or Chinese. "If you go into those languages without someone who speaks them to look at the way your font displays in game, it's going to be a bad time."

Best of luck to these experts' counterparts sifting through options to find a Chinese or Russian font with just the right balance of personality and legibility. ■

Lauren Morton

Positive Influence

INSPIRATIONS AND CONNECTIONS IN GAMES



WIKI WILD WEST

How *Deus Ex* inspired a WIKIPEDIA MURDER MYSTERY

Have you ever fallen down a 'wiki-hole'? Or played Six Degrees of Wikipedia, finding the shortest hyperlink path from, say, Denzel Washington to the page for Boring, Oregon? The truth is, we'd gamified online encyclopaedias long before writer Joannes Truyens got to them.

"There's an immediate literacy there," he says. "Wikipedia as a medium lends itself to non-linear storytelling."

The goal of Truyens' game, *Neurocracy*, is to solve a murder by digging through a near-future version of the site – bouncing between pages, unpicking the revision history as events unfold and finding the human drama hidden between the lines of dry, matter-of-fact prose.

The tagline of the fictional Omnipedia is 'building your world'; Truyens' own touchpoint for worldbuilding was *Deus Ex*. "I soaked up all the attention to detail in its depiction of a grounded near-future," he says, "which made me want to create such a world of my own."

It turns out there's a sweet spot for storytelling that straddles the present and the future – Truyens considers the more distant sci-fi of *Deus Ex*'s sequel, *Invisible War*, "outlandish and crass" and went back and forth on the exact year of *Neurocracy*'s setting.

"I initially chose the year 2049 to avoid the 2050s, because it's such a ubiquitous decade in near-future sci-fi," he says. "Then I shifted to 2060 when Blade Runner 2049 came out, and finally I want back to 2049 because fuck you Blade Runner, you don't own that number."

Familiar wiki tropes root *Neurocracy* in a recognisably real-world internet – from the personal appeal of Omnipedia founder Tony Hsiung, who grins at the top of the page as he scrounges for donations, to the pop-up that asks you to approve the use of cookies. But they rub against hard sci-fi, like the tick box for automatic authentication "if you are equipped with a neurometric colloid".

Inspired by *80 Days* and *Heaven's Vault*, the *Neurocracy* team decided that the game's story should be approachable from any angle. And so, while you can dive straight in at the assassination of a Beijing business magnate, it's just as viable to reach the central mystery by reading all about the format of a fictional reality TV show, Are You For Real?

THE REAL DEAL

The details of the "first show in the elimination romance competition genre generated and hosted entirely by a dreaming AI" ring true. If you've watched enough Love Island, you'll be familiar with the way producers nudge their pawns towards "intimacy or discord", as *Neurocracy* puts it, as well as the dark undercurrent of contestant tragedy that lurks beneath the 'Controversy' tab.

That authenticity makes perfect sense once you learn that Are You For Real? was dreamed up not by an AI, but Leigh Alexander, the narrative designer who spent the summer of 2019 obsessed with the televised villa fumblings and relationship betrayals of British 20-somethings, before working on the official Love Island dating game.

Truyens had previously been a fan of Alexander's work in videogames journalism, and the way her writing depicts, in her own words "the compelling, fascinating, beautiful, terrifying car crash of humanity and technology". She's one of many contributors who lend Omnipedia its convincing context.

Our world may be yet to witness its first murder trail in which the defendant claims to have been brainwashed by the AI in charge of a reality television set. But on the day of my interview with Truyens, Love Island viewers are in uproar over the show's use of an incriminating photograph to effectively break up a couple. When art imitates life, the reverse seems to inevitably come true.

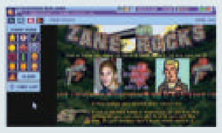
Which brings us back to *Deus Ex*, and its fictional plague, the Gray Death, which has long fascinated Truyens. In *Neurocracy*, the organisation behind the neural colloids was created to improve public health, in the wake of a pandemic caused by contaminated tuna – "all in place before COVID-19 was but a whisper".

"The movie Contagion was a huge deal for me," Truyens says. "Precisely because it let the science of disease outbreaks dictate the plot." Little did he know that the same film would ultimately inspire the UK health minister too. ■

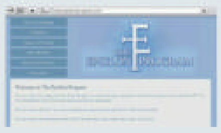
Jeremy Peel

INTERNET OF THINGS

The best games that simulate being online



HYPNOSPACE OUTLAW
Police a 1999 internet. Think pop-ups are bad these days?

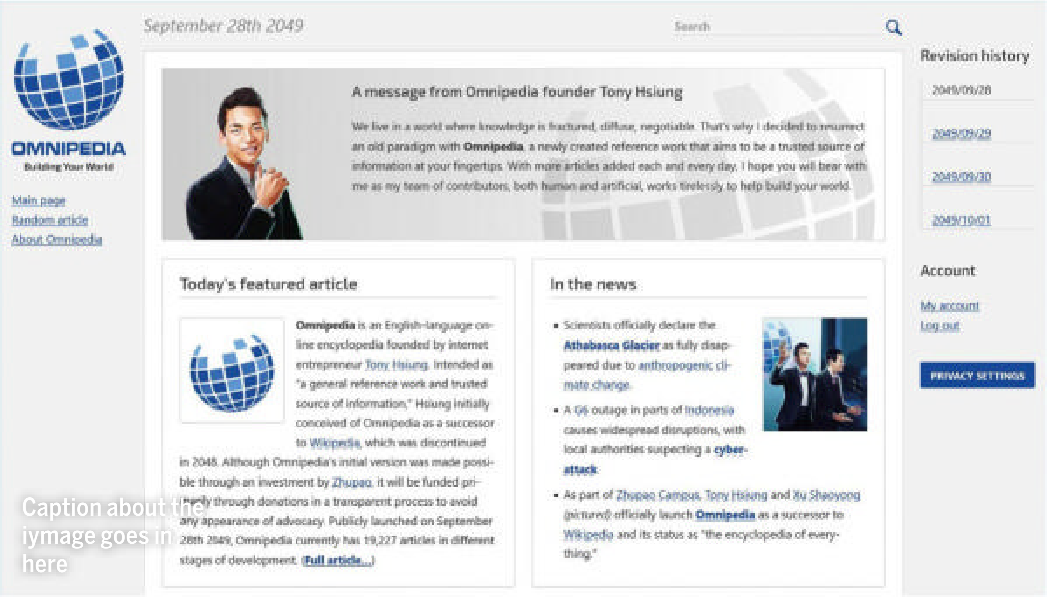


GTA V
While slightly more famous for its chaotic open world, GTA V also has a fully functioning browser.

DIGITAL: A LOVE STORY
A visual novel presented via an interface that resembles AmigaOS.

便利店
QUICK STOP
Lucky money

> THERE'S A SWEET SPOT FOR STORYTELLING THAT STRADDLES THE PRESENT AND THE FUTURE



September 28th 2049

A message from Omnipedia founder Tony Hsiung

We live in a world where knowledge is fractured, diffuse, negotiable. That's why I decided to resurrect an old paradigm with **Omnipedia**, a newly created reference work that aims to be a trusted source of information at your fingertips. With more articles added each and every day, I hope you will bear with me as my team of contributors, both human and artificial, works tirelessly to help build your world.

Today's featured article

Omnipedia is an English-language online encyclopedia founded by internet entrepreneur Tony Hsiung. Intended as "a general reference work and trusted source of information," Hsiung initially conceived of Omnipedia as a successor to Wikipedia, which was discontinued in 2048. Although Omnipedia's initial version was made possible through an investment by Zhupao, it will be funded primarily through donations in a transparent process to avoid any appearance of advocacy. Publicly launched on September 28th 2049, Omnipedia currently has 19,227 articles in different stages of development. (**Full article...**)

In the news

- Scientists officially declare the **Athabasca Glacier** as fully disappeared due to anthropogenic climate change.
- A G6 outage in parts of Indonesia causes widespread disruptions, with local authorities suspecting a **cyber-attack**.
- As part of Zhupao Campus, Tony Hsiung and Xu Shaoyong (pictured) officially launch **Omnipedia** as a successor to Wikipedia and its status as "the encyclopedia of everything."

Revision history

2049/09/28

2049/09/29

2049/09/30

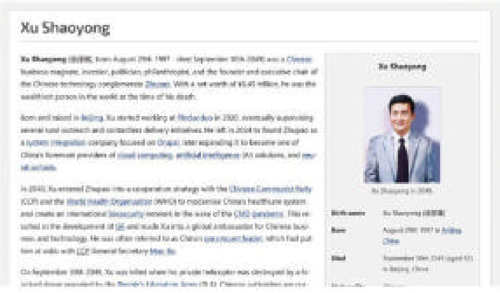
2049/10/01

Account

My account

Log out

Caption about the iymage goes in here



Xu Shaoyong

FAR LEFT: Somewhere, Jimmy Wales' ears are burning.

ABOVE: Believe it or not, this game has lots in common with Omnipedia.

DNA Tracing

GAMING'S LINEAGES EXPLORED

IT WOULDN'T BE TRUE TO SAY THAT DEUS EX WAS BORN FROM A UNIFIED CREATIVE VISION

BODY POLITIC

Celebrating the bravery and unbridled intellect of ION STORM AUSTIN

The life of a studio famed for big, difficult decisions began with a no-brainer. When John Romero approached Warren Spector with a blank cheque to make his dream game, Spector's team was unemployed – showing up to the defunct Looking Glass Austin office to pitch ideas unpaid. In their sketches and documents was a concept for a spy game called *Shooter*, in which an agent could hack devices and control nanotechnology. The year was 1997, and the air was thick with Hollywood actors in mirrored sunglasses tapping away at chunky keyboards.

Suddenly, with Romero's backing, anything Spector and his studio could imagine was fair game. The fundamentals were clear for a team that had coalesced around *Thief: The Dark Project* – a first-person world in which objects behaved as expected when subjected to gravity and the elements, and NPCs reacted with a nuance that enabled players to manipulate them.

Yet it wouldn't be true to say that *Deus Ex* was born from a unified creative vision. In fact, Spector encouraged discord by creating two design teams, each with a separate idea of what the game should be. One, headed up by future Arkane boss Harvey Smith, was determined to ground the adventure in a fashion that emphasised the 'near-' of near-future; the other had inherited the *Ultima* RPG sensibilities of Spector's alma mater, Origin Systems.

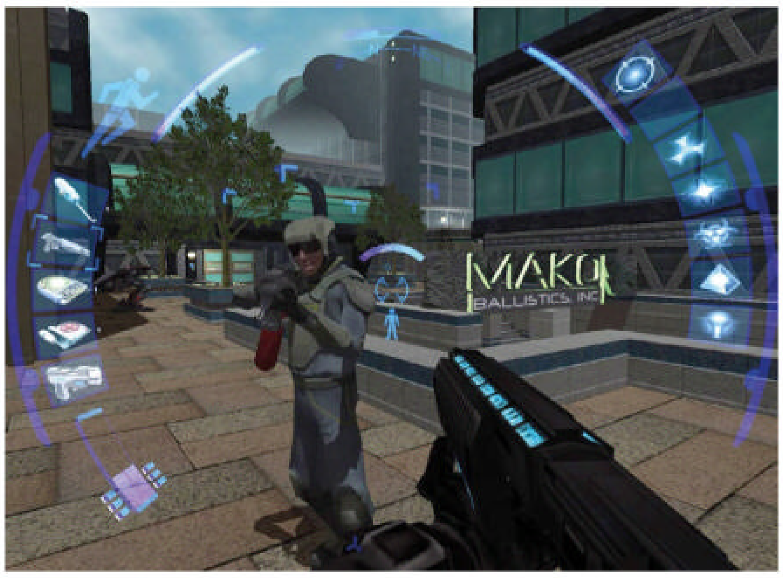
SOCIALIST SKILLS

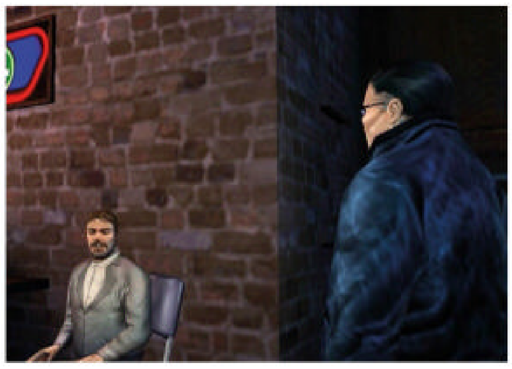
The results could have been disastrous, a game pulled apart by horses. Instead, *Deus Ex* was elevated by its whiplash variety. One level, which Smith fought to keep free of enemies, was a prototypical *Gone Home* in which you quietly explored the mansion of a dead Illuminati leader, listening to the wistful observations of the daughter she left behind. Another was a Matrix-esque hotel escape best handled with a flamethrower. A third, Hong Kong, was a massive city hub stuffed with engrossing dialogue – a no-no in Looking Glass games, which had favoured abandoned or out-of-hours spaces in order to dodge uncanny NPCs. Forget *Assassin's Creed*, *Deus Ex* was the game in which everything was permitted, for player and developer both.

That exhilarating clash of contrasts was reflected in the story, too. Where later sequels homed in on transhumanism and the social issues it magnified, the original *Deus Ex* was an explosion of conflicting political ideas. Through likeable secondary characters, who condemned lethal methods in no uncertain terms, it endorsed a broadly liberal worldview. Yet its knotted storyline also warned against the potential of globalism to put power in the hands of a malevolent few, and hooked you up with a terrorist group dedicated to upholding the US right to bear arms. Thanks to the earnest socialist voice of lead writer Sheldon Pacotti, *Deus Ex* became a game in which a minor NPC in a bar could bend your ear with a radical interpretation of the Declaration of Independence. Like the environment it was produced in, *Deus Ex* was a smorgasbord of ideologies.

INVISIBLE WALLS

By the time it came to make *Deus Ex: Invisible War*, Ion Storm Austin had resolved its internal differences.





ABOVE: Help me, quest-driven lackey. You're my only hope

HI NG

The best songs by Invisible War's *pop star, NG Resonance*

FEATHERS
The real group behind NG Resonance's songs is called Kidneythieves. On this eerie, Portishead-esque number, singer Free Dominguez transitions from folky to fury and back again.

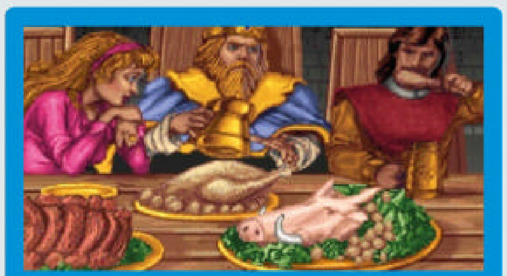
TAXICAB MESSIAH
Upper Seattle's nightclub is home to two revellers, dancing the night away to the stuttering drum machine and bawling guitars of this commendable Nine Inch Nails rip-off.

S&M (A LOVE SONG)
A percussive industrial rock song, S&M barrels along like an army marching down a steep hill. Arguably too heavy to be credited to the 2070s equivalent of Ariana Grande.

AUGMENTATION

How Ion Storm Austin upgraded the greats

KEY
🟥 Ion Storm Austin
🟧 Ion Storm Dallas
🟦 Looking Glass Studios



ULTIMA UNDERWORLD

A wordy first-person RPG that led to greater things.

SYSTEM SHOCK

Warren Spector produced this groundbreaking immersive sim.

THIEF: THE DARK PROJECT

The blueprint for half the stealth genre.

THIEF II: THE METAL AGE

Went harder on the steampunk.

DAIKATANA

John Romero founded Ion Storm to make this underwhelming FPS.

ANACHRONOX

An oddball JRPG from id Software's Tom Hall.

DEUS EX

Rightly celebrated as a feat in non-linear action and storytelling.

DEUS EX: INVISIBLE WAR

Flawed but bold sequel. Still deserves a look.

THIEF: DEADLY SHADOWS

Hosts the best horror level ever made.

ABOVE: Only master thieves know what other people say about them when they're not around.

Perhaps that was part of the problem. With Harvey Smith newly installed as creative director, the team set about streamlining, determined to focus *Deus Ex*'s feature set. Some of the more notorious controversies now seem overblown – the universal ammo system is defensible, for instance, since it regularly drains your guns, encouraging creative solutions with an environmental or social dimension instead. But *Invisible War*'s amalgamated factions decoupled the series from real-world concerns. What's more, a singular vision reduced *Invisible War*'s capacity for surprise, even as it routinely matched its predecessor for thoughtful, non-linear level design.

The biggest issue, however, was the Xbox. It's important to note that, in 2021, the tribal fear of 'dumbing down' is outdated hogwash; practically every AAA game is now multi-platform, a trend which has multiplied game budgets, benefitting PC gamers just like everyone else. *Invisible War*, however, fell on the edge of that change. The Xbox's 64mb of RAM forced a dramatic reduction in the scale of *Deus Ex*'s levels.

While not necessarily a dealbreaker for design – immersive sims have always favoured density over sprawl – it was a compromise that hurt *Invisible War*'s fiction. Lower Seattle, supposedly a sprawling slum, comprised a couple of tight streets, three apartments, one coffee shop and a deathly quiet bar – far from the "vast cityscape" described in early interviews.

SHADOW CABINET

Ion Storm pursued a similar policy of parallel development on PC and Xbox for its third and final project, *Thief: Deadly Shadows*. And some of the same problems manifested – especially in the cramped open world that connected missions, damaging the carefully curated sense of a larger city looming in the background of Garrett's heists. Yet it clearly benefitted from being second in the queue, behind *Invisible War* – bearing less of the brunt of the console's technological lessons.

In fact, with *Deadly Shadows*, it finally seemed as if advancing tech was catching up with the Looking Glass dream of a simulation that mimicked the world's natural forces. The Havok physics was rubbery but robust, and Ion Storm made fine use of dynamic shadows – making your safe space mercurial for the first time as torch-wielding patrols moved back and forth behind lampposts.

Most of all, *Deadly Shadows* felt like the completion of a circle for the studio that had first coalesced around *Thief*. Spector let former Looking Glass staff lead the way, who treated *Deadly Shadows* as the last part in a trilogy – tying off Garrett's journey from cynic and misanthrope to caretaker of the world. Rarely has an inherited series been honoured so carefully.

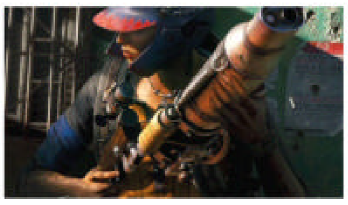
Ironically enough, it's a reverence Ion Storm would never have afforded its own series, *Deus Ex*, which it considered a platform for risk-taking. That impetus might have disappointed players of *Invisible War*, who found their beloved RPG-shooter too much changed. But without that same quality, they would never have cared about the name *Deus Ex* in the first place. ■

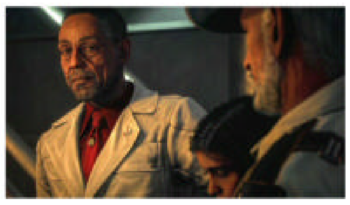
Jeremy Peel

RARELY HAS AN INHERITED SERIES BEEN HONOURED SO CAREFULLY

KNIFE
CHARGER PROD
BUCKSHOT SAWED-OFF
NAPALM FLAMETHRW
ROCKET GEP GUN
COUNT: 3 EMP GREN
COUNT: 3 SCRM GREN
COUNT: 4 GAS GREN
USES: 13 MULTITOOL
KEY RING

The Hong Kong hub has a catchy theme tune.





NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
October 7, 2021	Ubisoft Toronto	Ubisoft	bit.ly/3svJpHg

FAR CRY 6

A new villain, a new country, but plenty that feels familiar

A megalomaniacal villain prone to lofty speeches rules the land with an iron fist. A lone hero sparks a rebellion, taking back outposts and defeating the villain's lieutenants, one by one. Meanwhile, exotic animals routinely burst from the trees and attack anyone in sight. Stop me if this sounds familiar.

Not that familiar is a bad thing. The last few entries in the *Far Cry* series have settled into something of a formula, and it's a formula I've mostly had a lot of fun with. I haven't played much of *Far Cry 6*, only a few hours of a preview build that mostly took place at the start of the game on a small section of the map. But from what I played, it really doesn't feel like it's reinvention of the formula. There are some tweaks and changes, but *Far Cry 6* definitely feels like another big helping of *Far Cry*.

Welcome to Yara, a Caribbean island with a cyclical history of a despot taking power, being overthrown in a revolution, and being replaced by another despot. The latest at the head of the table is Antón Castillo, your typical fascist who executes his citizens with impunity and encourages his young son Diego to shoot a helpless prisoner as a sort of twisted life lesson. Under Castillo's rule, Yara has been isolated from the rest of the globe for decades, but Castillo plans to bring his island nation back to the world stage again. His scientists have discovered (according to him) an effective treatment for cancer, and in order to mass produce his meds, Castillo is forcing his citizens, via lottery selection, to essentially work as slaves. Those who refuse: blam.

CASTILLO PLANS TO BRING HIS ISLAND NATION BACK TO THE WORLD STAGE AGAIN

One of those lottery 'winners' is Dani Rojas, a young woman (or man, your choice) who attempts to flee Yara rather than submit to Castillo's dictatorship. But before Dani has a chance to escape she gets caught up with a small group of passionate guerrilla fighters who want to overthrow Castillo and fight for their country instead of turning their backs on it. My preview began with Dani holding a machete on the beach of a small landmass that might as well have been called Tutorial Island. Within a minute I was sneaking up behind enemy soldiers, tapping a key, and watching Dani slam her machete into their necks, backs and stomachs, those types of silent kills that seem like they would make a lot of noise.

MACHETE

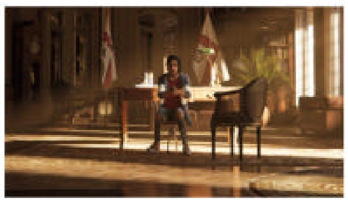
Kill a soldier with a machete, get a pistol. Kill a few more, you've got a rifle. And so on. As I skulked around dispatching soldiers with stealth, I also picked up scrap metal and other resources, and soon I was tinkering with my weapons at a workbench to mod them. A silencer made from a bottle. A sniper scope with the crosshairs drawn on with ink.

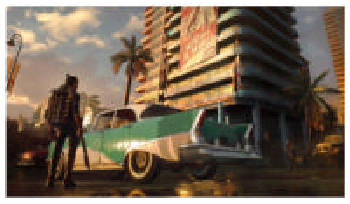
PLAYED IT

The rebels of Yara are poor, and have to use low-tech improvised weapons and crudely crafted modifications.

Well, sort of. As penniless as the guerrilla resistance claims to be, they have access to some ridiculously effective weaponry. After recruiting a veteran guerrilla, I'm able to craft a backpack called a Supremo, which can launch a sortie of guided rockets that will home in on my enemies and are capable of destroying heavy military equipment. It's so ridiculously deadly that barely an hour into *Far Cry 6* I feel like I've already got a cheat code. One mission requires me to take out an enemy commander in a heavily guarded fortification. I walk to a cliff overlooking the facility, use my phone's camera to zoom in and tag the commander, then launch all of my rockets right into her face. She runs, my rockets follow. Boom. Mission complete and I didn't even set foot in the fort.

That's not the only version of the Supremo, by the way. The game has





PUESTO DE
NTROL

several. One acts as a mobile hospital, and instead of launching rockets it spews a cloud of healing vapour (I imagine it could be quite useful for playing medic in *Far Cry 6*'s two-player co-op mode, which is available for the entire campaign beyond Tutorial Island). Another version of the Supremo lifts you off the ground as it emits a massive ring of scalding fire in all directions. And another produces an EMP blast that disables vehicles and electronic security devices, and knocks nearby soldiers off their feet. How do you recharge the Supremo once you've used it? I'm told plainly by a character in the game that my backpack really likes it when I kill enemy soldiers, and will recharge faster the more of them I kill. That is some nice tech the rebels have.

So, yes, *Far Cry 6* continues the tradition of wacky weapons from the past few games, too. There are poison bullets that can turn enemies against each other. There's a minigun made from a motorcycle engine. There's a modification for the shotgun that will make its shells vampiric so you'll be healed as you shred your enemies. And your weapons and gear have an especially important function in *Far Cry 6*. One of the changes to the formula is that perks are now exclusively tied to your gear. Rather than unlocking skills from a tree and applying them to your character, you now gather items like body armour, boots, gloves, and headwear that provide bonuses.

EXPERIMENT

Without all that much time to experiment with the system, I can't decide if I like the change or not. It's nice to not be locked into a build – sometimes you might spend points on sniper skills and decide you enjoy close-range combat instead, for example, so those points just went to waste. In *Far Cry 6*, you can just take off your sniper gloves and put on a different set that provides a different perk, which allows easier experimentation.

On the other hand, I'm not looking forward to getting halfway through a stronghold invasion and realising I'm not wearing my stealth-boosting boots because I swapped them for something else. There's something to be said for perks that stick with you no matter what you're wearing.

While you don't have dedicated human companions (the guns-for-hire system of *Far Cry 5* is gone) you can recruit animals like a gator named Guapo who will eat your enemies, a dog named Chorizo who can distract soldiers, and yes, even an enormous angry rooster. Having animals at your side is especially helpful in the wilderness, due to all the other psychotic animals. I'd often be running around or lining up a sniper shot only to hear Guapo enthusiastically tearing into a boar or a coyote or a barracuda that had decided I was their next meal.

Traversing Yara is mostly familiar, too. In my few hours of play I've driven cars, parachuted off cliffs, clambered back up cliffs with the grappling hook, glided through valleys (and into valley walls) with a wingsuit, and there are small planes and helicopters to be commandeered if you're willing to take out Castillo's anti-aircraft weapons first. There is one new travel twist: you can ride horses this time, a feature somehow missing from the Montana of *Far Cry 5*. And horse riding is honestly a wonderful way to get around, whether you're thundering down a paved road as startled citizens yell and car horns honk, or you're winding your way up and down forgotten guerilla paths in the jungle. I never thought I'd be happier to ride a horse than fly a chopper, but here we are.

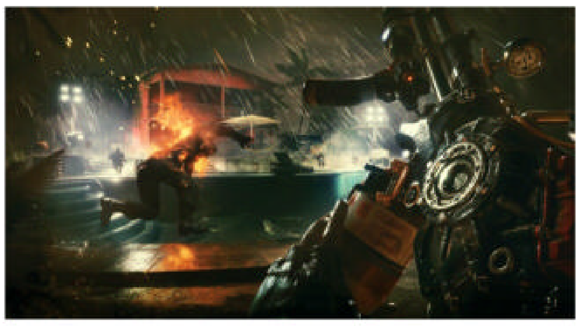
YOU CAN RECRUIT ANIMALS, LIKE A GATOR NAMED GUAPO WHO WILL EAT YOUR ENEMIES

DISGUISE

Also new to *Far Cry 6*: holstering my weapon means enemies won't immediately mark me as a rebel. In a series where the bad guys always recognise you on sight and immediately start shooting, it makes more sense that Dani, being a Yara local, wouldn't look different than any other citizen. (I mean, she does, because I was walking around with a bright yellow hazmat mask and a Supremo rocket launcher on my back.) It's nice to be able to walk and drive freely through the world without enemies spotting you, simply because you're hiding in plain sight.

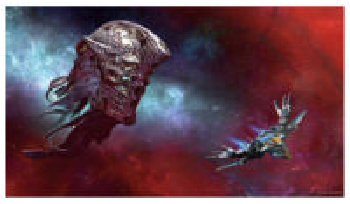
If there's one thing that really sets *Far Cry 6* apart from earlier games in the series, it might be size. The full map looks startlingly huge. Tutorial Island felt pretty expansive, and it's utterly dwarfed by Yara proper. There's plenty familiar in *Far Cry 6*, but I'm hoping a map that big is hiding some equally big surprises.

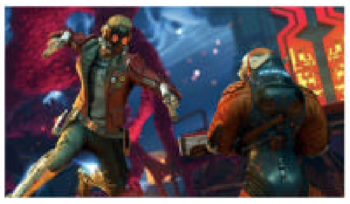
Christopher Livingston

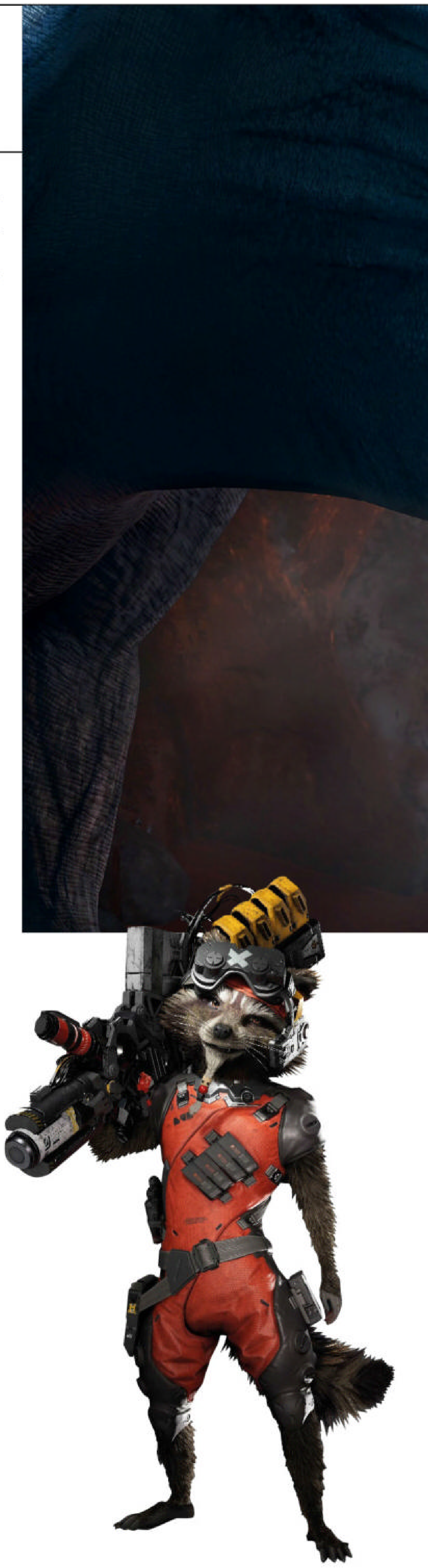


ABOVE: It's *Far Cry*'s biggest world yet.

LEFT: Take on the military, town by town.







NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
October 26, 2021	Eidos Montreal	Square Enix	bit.ly/3fBUQbj

GUARDIANS OF THE GALAXY

A very different take on Marvel's sci-fi miscreants

While the official title for Square Enix's latest superhero tie-in is *Marvel's Guardians of the Galaxy*, it would be more appropriate to call it *Eidos Montreal's Guardians of the Galaxy* because Eidos Montreal's game will offer a new take on those characters and the galaxy in which they reside.

"It's not based on the MCU. It's not based on the comics," says Jean-François Dugas, senior creative director at Eidos Montreal. "It's its own thing, its own reinvention, its own reinterpretation of those characters and the backgrounds."

NEW INFO

Yes, the Guardians will have altered back-stories in Eidos Montreal's game, and those stories will play a significant role in the game's central plot. Taking place roughly a year after Star-Lord, Gamora, Rocket, Drax and Groot join forces, Eidos Montreal's story sees the Guardians short on cash and looking to make a quick buck. To that end, they take a job capturing alien monsters for a warrior queen known as Lady Hellbender. "Along that quest, they awaken a mysterious force that's been concealed for the longest time, and unbeknownst to them, it starts to do its damage in the background," Dugas says.

Fixing the damage that they accidentally do will see the Guardians confronting their freshly written pasts. Only a year into their partnership, the Guardians are a raw and prickly bunch, still on a path of discovery about themselves and each other. "We'll discover a lot about what pain they went through, what they're still concealing, what is the thing that they didn't overcome," Dugas says. In addition, their relationships won't necessarily evolve in the ways you might expect. For example, Dugas states there is "no romantic situation between Gamora and Peter".

THE GUARDIANS ARE A RAW AND PRICKLY BUNCH, STILL ON A PATH OF DISCOVERY

QUILL POWER

Structurally, *Guardians of the Galaxy* is a linear action-adventure similar to Naughty Dog's *Uncharted* series. Yet unlike *Uncharted*, *GotG* will give players some agency to influence the story. Playing as Star-Lord, your role as leader will involve choosing how to respond to characters, situations and problems.

The degree to which choices affect the story varies. "Some of the choices you make are, you know, it's more like a different colour," says Olivier Proulx, senior producer at Eidos Montreal. "Then in some other instances, it's deeper than that." Proulx cites an example from *GotG*'s E3 demo, where Star-Lord decides whether or not to have Rocket thrown across a chasm to lower a bridge. "Depending on your choice there, the level that follows where you go into Lady Hellbender's fortress, the level design and the level experience are two completely different experiences."

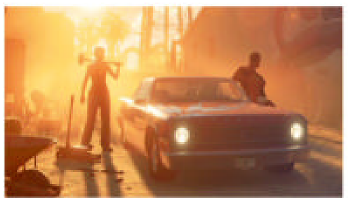
These choices can affect Star-Lord's relationship with other characters. Dugas is keen to point out, however, that relationships aren't systematised, as Eidos doesn't want players focusing on trying to game such a system to get the 'best' outcome. "We really wanted to focus on the character experience through the adventure. So we made decisions that would help players to keep their mindset in one place, which is being with the Guardians," he says.

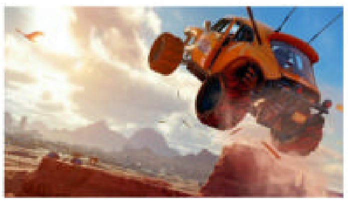
That's what Eidos' game is about, being with the Guardians. Dugas and Proulx want you to feel the camaraderie between them, to ensure that each character has a role to play, whether it's in a cutscene, or exploration, or combat. "We don't want them to feel like AI bots or NPCs," Proulx concludes. "The Guardians are always with you, and they're constantly reacting. They're part of the of the gameplay loop at every level."

Rick Lane

ABOVE: Lady Hellbender and her lovely pet.

LEFT: Star-Lord and Rocket, what a team.





NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
February 25, 2022	Volition	Deep Silver	saintsrow.com

SAINTS ROW

The ultimate crime fantasy is getting a reboot next year

Saints Row is getting a complete reboot, and it's just called... *Saints Row*. All those wacky antics from the four previous games, like diving into computers, killing zombies for Burt Reynolds, becoming president, and ruling the world with superpowers? None of that happened in *Saints Row*'s new American southwest-inspired world, Santo Ileso.

This time around, the Saints crew is a close-knit group of four young friends, each with their own expertise: planner and business mind Eli, expert driver Neenah, DJ and smooth talker Kevin, and the slightly off-the-rails Boss (that's you). As the Boss, you can still create a completely custom character that's big or small, young or old, and anywhere in between.

FIRST LOOK

Interestingly, *Saints Row* won't have an expanding cast of characters that join the core Saints crew over time. You will recruit additional nameless underlings as you expand your criminal empire with new businesses, but the story centres around the four core Saints founders. Volition talks about the burgeoning crew – a quartet that's tired of working for big criminal organisations that decide to start their own thing – more like a startup company than a gang. I guess that means your mission is to 'disrupt' crime?

The new crew seems like a spirited bunch. Their appetite for chaos is reminiscent of the old gang in the best ways, but I detect less meanness and cynicism this time around. I'm more excited about Santo Ileso itself, which looks like a truncated version of Las Vegas' desert region. Creative director Briant Traficante says Santo Ileso is "one of the largest cities we've built for a *Saints Row* game". How big is "largest" exactly? Volition didn't say, but there will be nine distinct districts across the map.

THEIR APPETITE FOR CHAOS IS REMINISCENT OF THE OLD GANG IN THE BEST WAYS

GANG LAND

It's great to see *Saints Row* expand out from a single city-sized sandbox. One of *GTAV*'s greatest strengths is its world that's just as fun to drag race in as it is to jump motorcycles off huge dirt hills. I hope Santo Ileso can achieve similar highs, but don't expect a similar player count. Like every *Saints* game before it, *Saints Row* caps out at two-player co-op.

As you grow the new Saints crew, vacant lots across Santo Ileso can be purchased and turned into businesses. Volition showed off a few examples, including a food truck dispatch that also peddles drugs, arms dealers, car repo shops, nightclubs, and laundromats. I got the sense that these optional businesses will rake in extra money automatically.

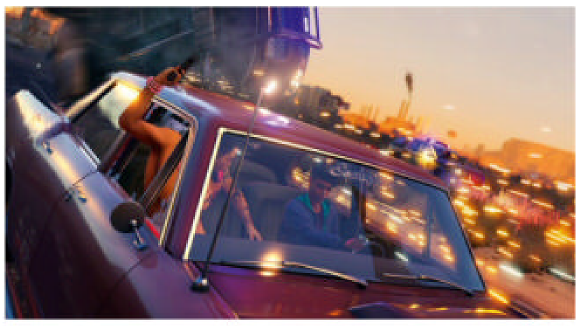
Volition confirmed that some side activities from past games will make a return through opening businesses, like the popular ragdoll punishment minigame Insurance Fraud.

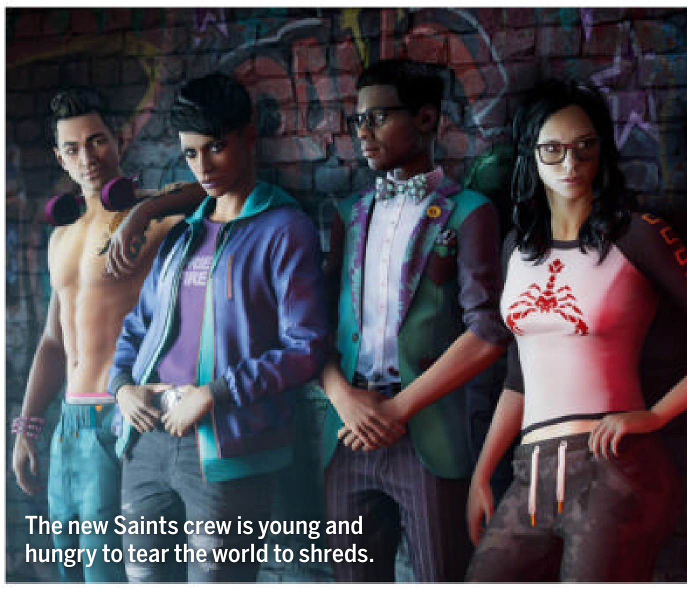
Without getting specific about the series' edgy humour from past *Saints Row* games, studio development director Jim Boone says the *Saints Row* reboot will bring the series into the 2020s. "We love [the old *Saints Row* games], but we also recognise those are games of a time," he said. "They made sense within that era, and we were able to do things that felt good back then. But that tone is not something that we feel like we want to do today. We had a different kind of story that we wanted to tell."

A new main cast and city certainly freshen things up a bit, but as a whole, *Saints Row* seems very similar to the games before it. Volition promises that the shooting is still arcady, driving is better than ever, and the weapon choice is vast.

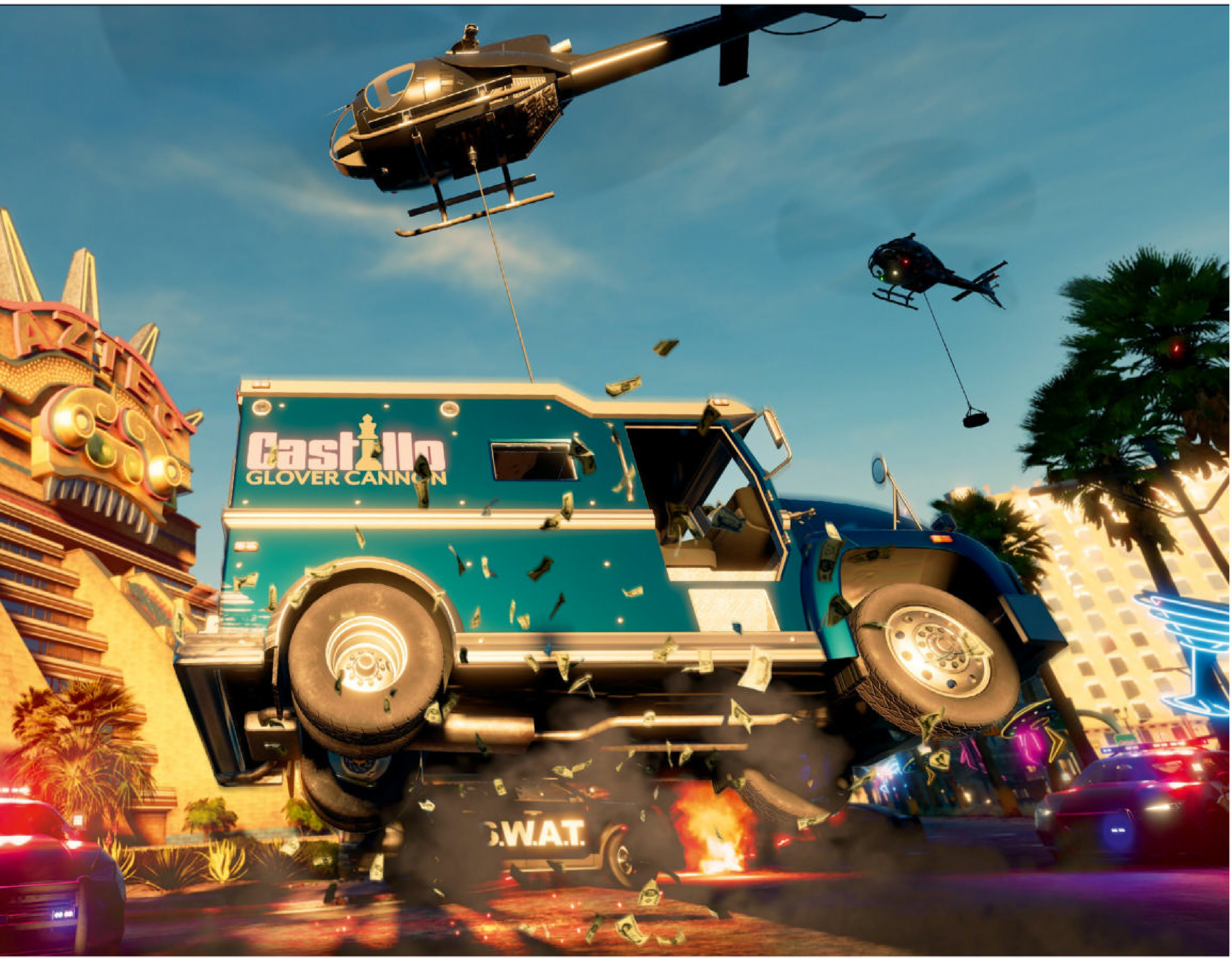
We'll check on those claims once we can play it, which is sooner than you might expect. *Saints Row* is launching February 25, 2022 on the Epic Games Store.

Morgan Park





The new Saints crew is young and hungry to tear the world to shreds.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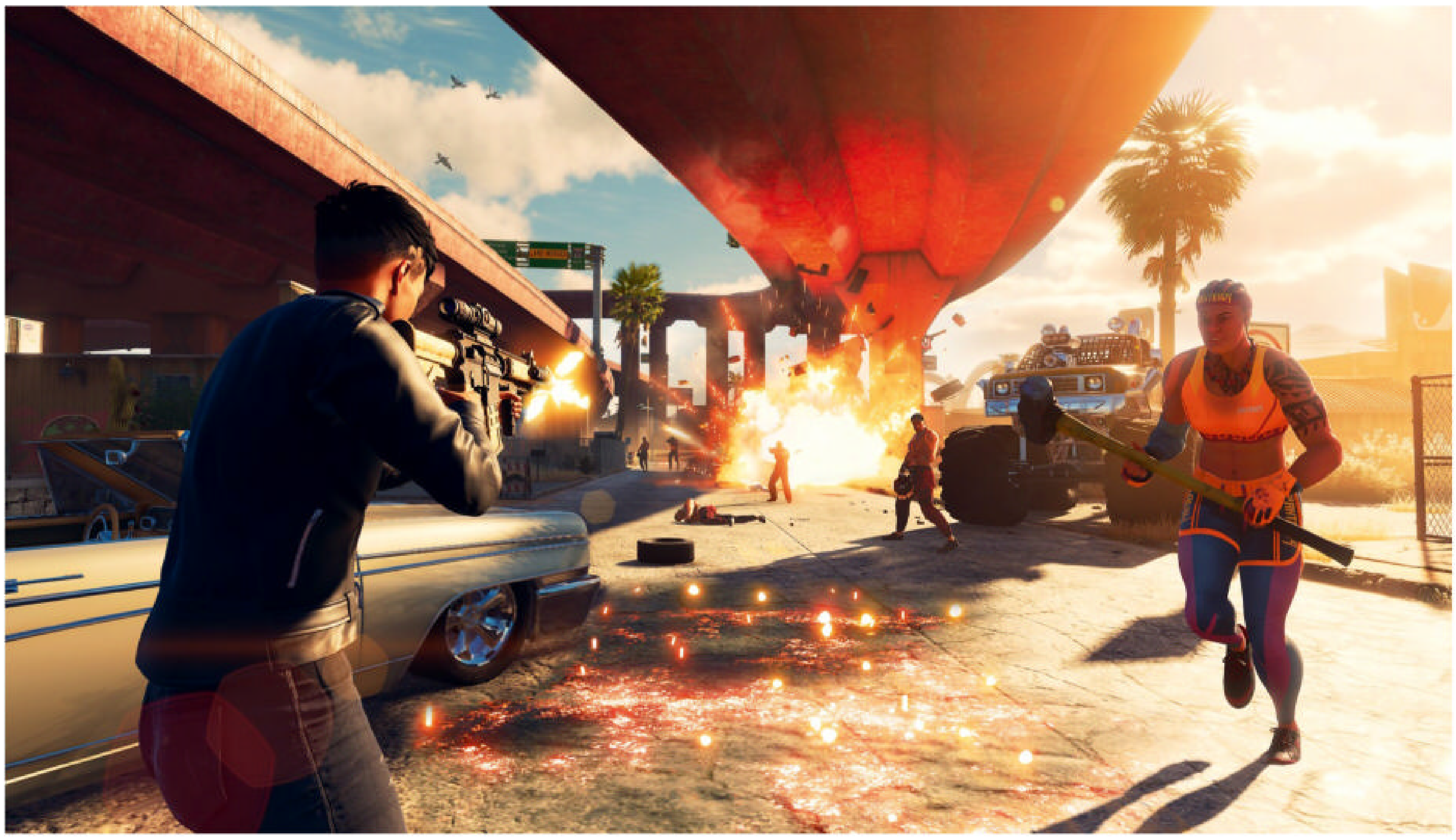
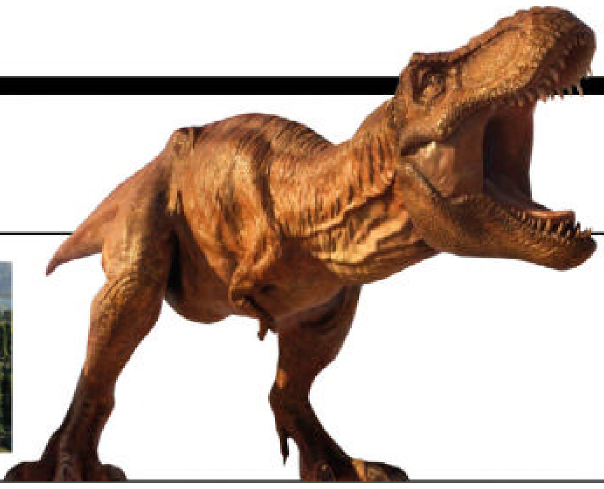


ABOVE: Volition says Fast and Furious is a major inspiration for *Saints Row*.

LEFT: *Saints Row*'s combat will still be fast and breezy, according to devs.



NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
November 9	Frontier Developments	In-house	jurassicworldevolution2.com

JURASSIC WORLD EVOLUTION 2

Beautifully-rendered dinosaurs are the main attraction

In *Jurassic World Evolution 2*, Earth has entered the so-called Neo-Jurassic Age, a brand new time period signalling the re-introduction of dinosaurs to the planet. Our large reptilian friends now coexist with us humans, frolicking around Earth's green pastures, scorching deserts, and the backyards of suburban family homes.

PLAYED IT

Even though they've only just escaped, *Jurassic World Evolution 2* wants you to put the dinos back in their habitats and tasks you with building a sprawling dinosaur wildlife park. It's interesting to see how Frontier has developed its dinosaur-centric management sim, especially considering the success of the studio's other creature theme park sim, *Planet Zoo*. King penguins and meerkats are cute, but prehistoric reptiles from another age have a special place in my heart.

In the first chapter of the campaign a poacher ring has recently been broken up, and I need to locate the dangerous dinosaurs in the wild and build a facility nearby to contain and treat them.

There are two Carnotaurus wandering around the main area which are easy to spot, and then I begin to look for the other escaped dinosaur, which means leaving the centre and tracking it.

Jurassic World Evolution 2 is no longer contained to the Muertes Archipelago, so this chapter is set in the snowy mountains of Washington where herds of brontosaurus and triceratops are freely wandering about. Cruising around seeing all the dinosaurs in the wild is pretty cool and, together with driving around Washington's natural scenery, is a breath of fresh air for the sequel.

One thing that caught my attention was how incredibly lifelike the dinosaurs look. Frontier has boasted, rightly so, about how realistic its animals look in *Planet Zoo*, and it looks like *Jurassic World Evolution*'s dinosaurs have gotten the same treatment. They are by far the best-looking dinosaurs I've seen in games. It's not just how they look, but also the details in how they move – it's incredible.

After finding the missing dinosaur, the game switches to helicopter mode so I can tranquillise the ferocious beast and move them back to the dinosaur centre.

ONE THING THAT CAUGHT MY ATTENTION WAS HOW LIFELIKE THE DINOSAURS LOOK

RAWRSOME

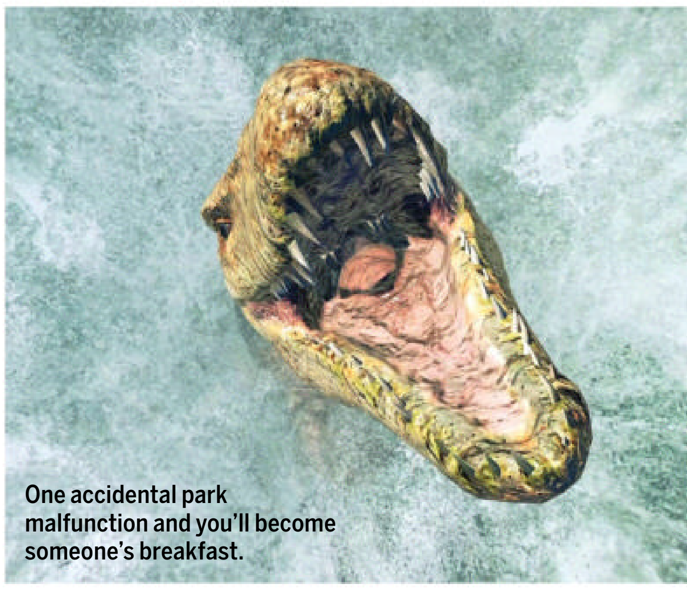
I leave Washington's chilly tundra for the sun-kissed mountains of Canada to check out *Jurassic World Evolution 2*'s challenge mode, and I'm tasked with building a 5-star park from scratch. Challenge mode lets you dip into *Jurassic World Evolution*'s 75 dino gene pool. The two newest additions to the reptile roster are the flying and marine dinosaurs, which you'll need to build the appropriate aviary and lagoon enclosures for.

Even with a handful of new buildings and habitats, there's still not a lot of park customisation. Buildings and guest attractions are only available in one style and there's not much in terms of park decoration. It looks like Frontier has decided to exclude the colourful theme park sets you would find in *Planet Zoo* and instead keep the style of *Jurassic World Evolution*'s parks in line with the movies.

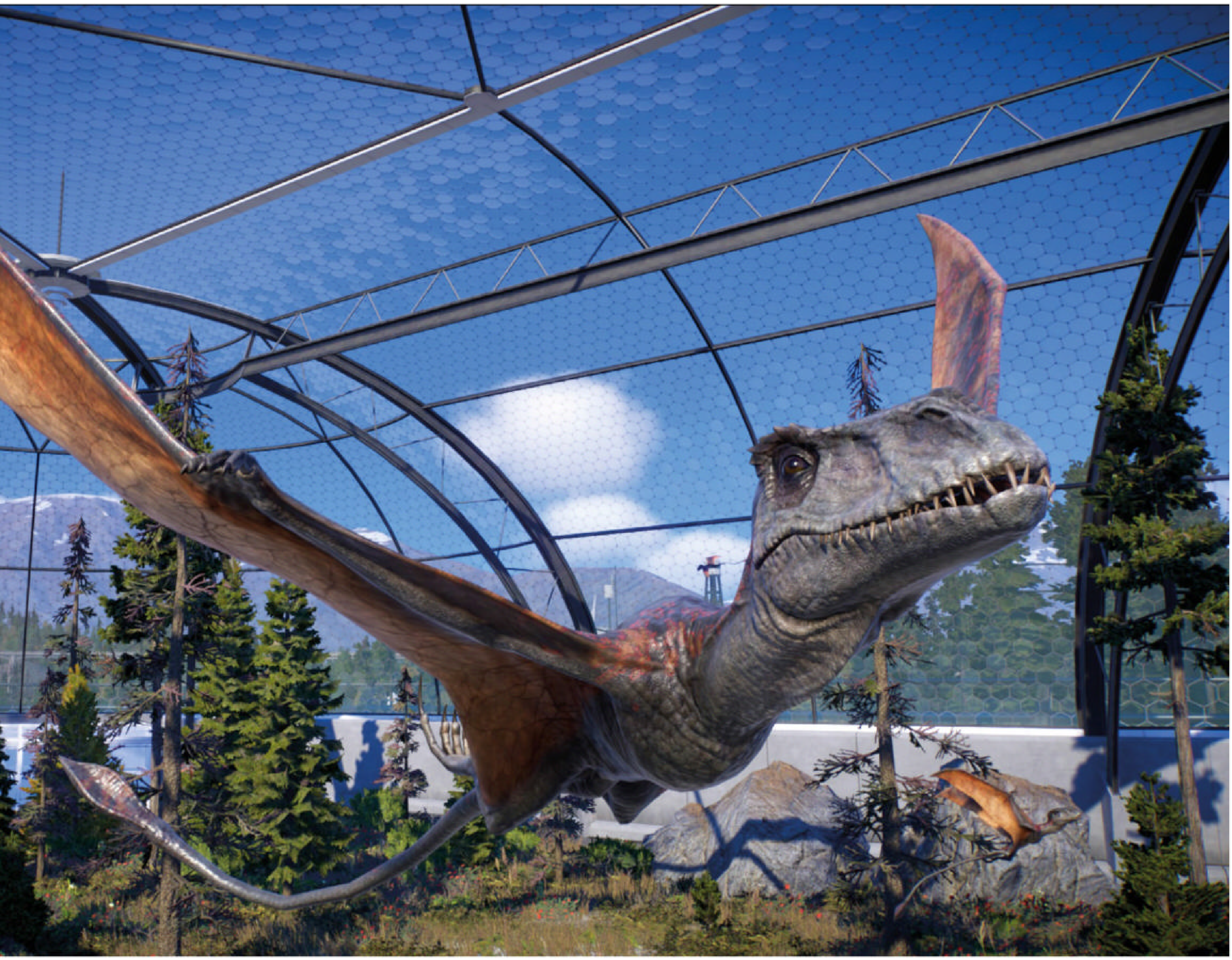
One element that wasn't available to play, but has serious potential, is the Chaos Theory mode. It's a part of the game that lets you play through iconic 'what if' moments from the Jurassic Park films. It's not clear exactly how this mode will play out, but it sounds cool as heck.

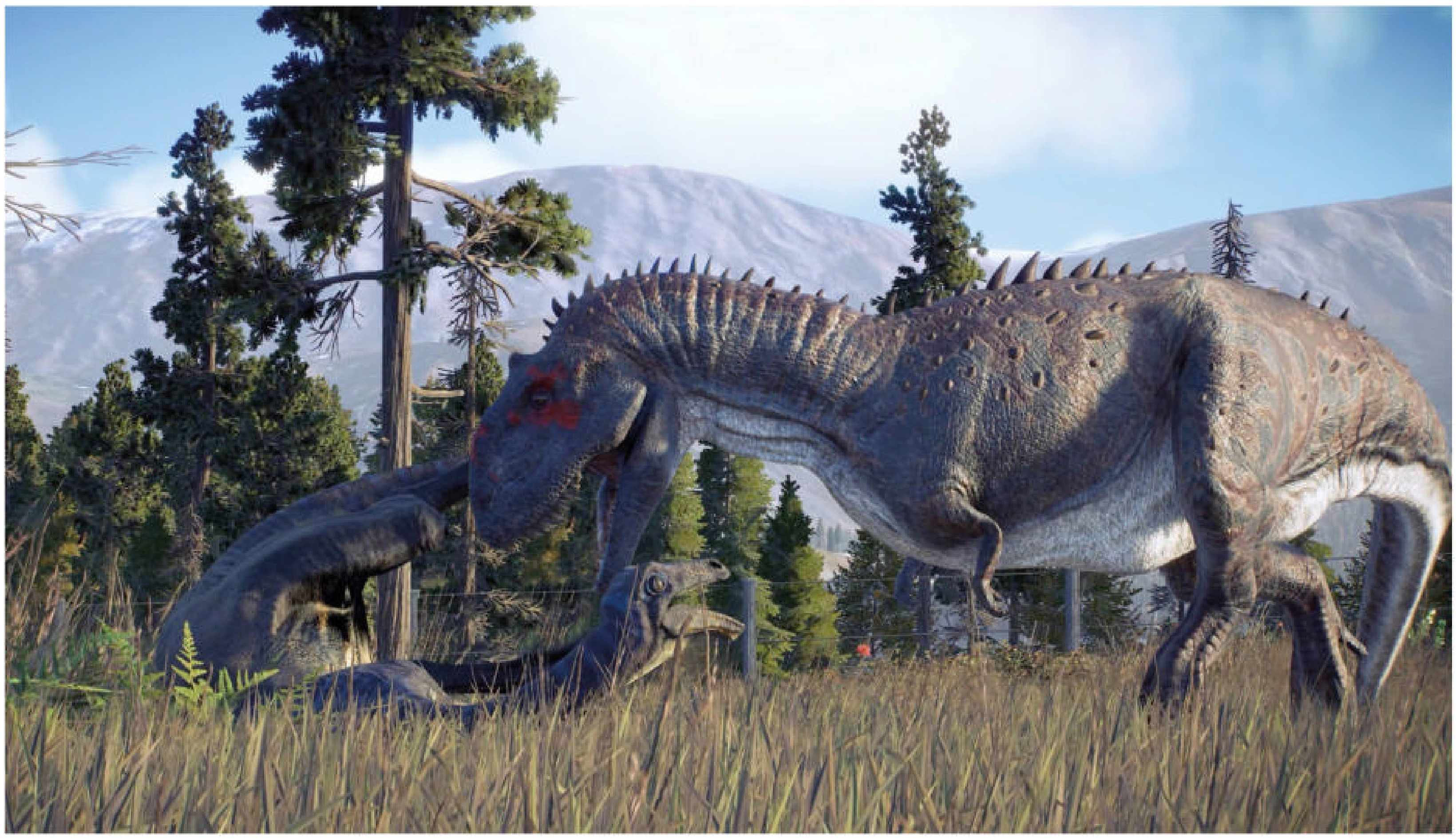
Jurassic World Evolution 2 will be out in November, and although much of the management and customisation has stayed the same, this sequel manages to capture that feeling you had when you first saw a dinosaur on your screen in the original Jurassic Park.

Rachel Watts



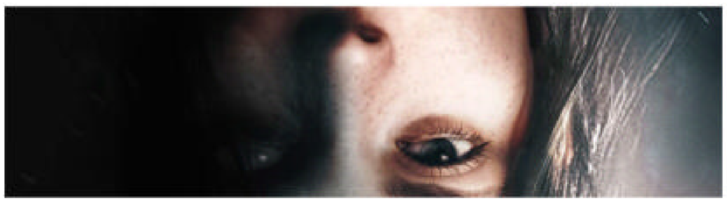
One accidental park malfunction and you'll become someone's breakfast.





ABOVE: Build aviaries for the new flying dinosaurs.

LEFT: Always remember, park managers: don't mix your dinosaurs.



NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
2021	LKA	Wired Productions	bit.ly/2WmLB7N

MARTHA IS DEAD

Dark deeds, dark thoughts, and darkrooms

The woods at night. Never a good place for a walk, especially if you're in a psychological thriller and have an unreliable light source. There's something else out here too. It may be a vengeful spirit, or it may be a manifestation of your guilt for... for what, exactly?

The game starts with the story of the White Lady, a young woman murdered on an island in the lake who takes lives to sate her pain. Years later, and *Martha is Dead*'s protagonist is prone to wandering in the woods, sometimes in her dreams, other times for real. A family tragedy has redefined her relationships with her home and those who live there, and the beautiful Tuscan farmhouse takes on a different character after dark.

The game trespasses into horror territory quite frequently, but much of the time we spend with it is in the daylight, as the family is preparing for a funeral. It's 1944, and cameras feature quite prominently in the game, the period-authentic Rolleicord twin-lens reflex used for mysterious plot-specific reasons that haven't been revealed yet. When not snapping away at the sparrows on the patio, there's a film-developing minigame that's just tricky enough to make it annoying when you mess up.

When not jump-scaring you in the woods, *Martha is Dead* sets up an intriguing mystery to explore. We look forward to seeing more of it.

Ian Evenden

THE GAME TRESPASSES INTO HORROR TERRITORY QUITE FREQUENTLY

1 Being the daughter of a WWII German general, this sort of thing is inevitable. Your father supports his daughter's hobby, and is the reason there are cameras all over, a darkroom in the cellar, and enough tripods that you can abandon them out by the lake with no repercussions.

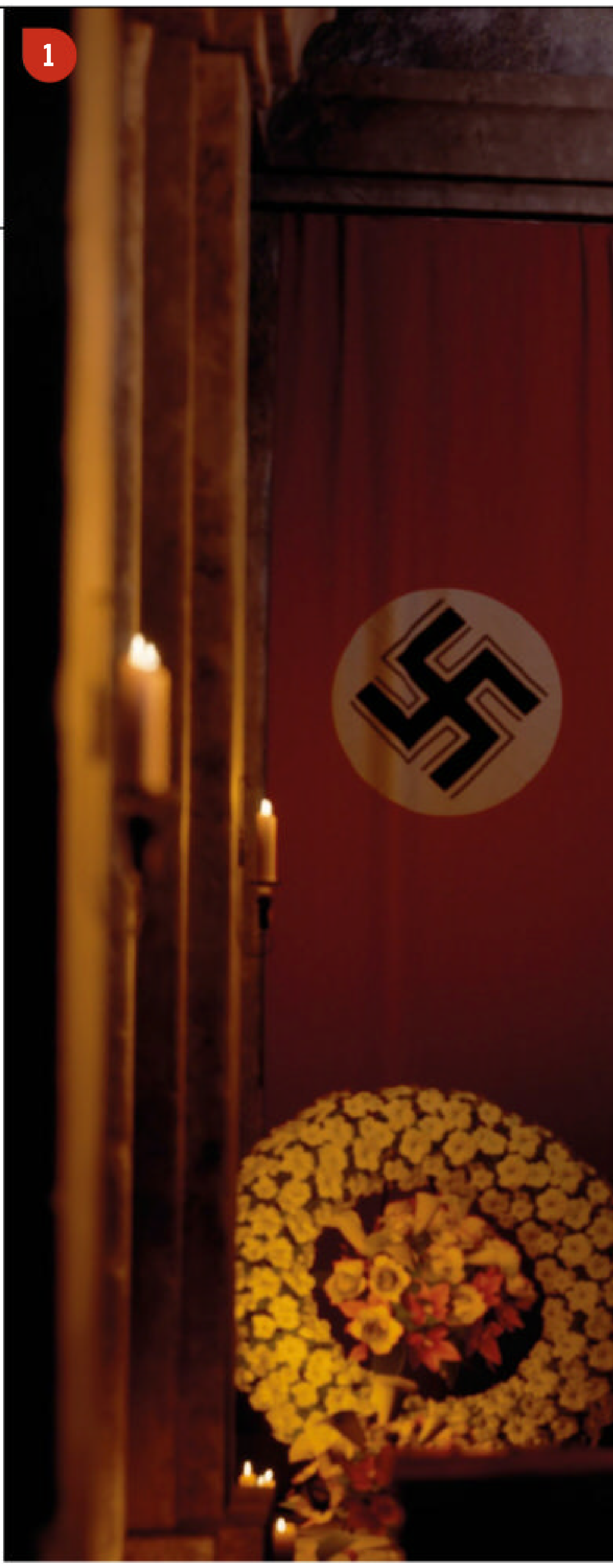
2 Right, pay attention. This is the Rolleicord, the cheaper, 'amateur' version of the Rolleiflex medium format twin-lens reflex camera. The game slightly fudges things, allowing you to preview depth of field, which you couldn't in the original.

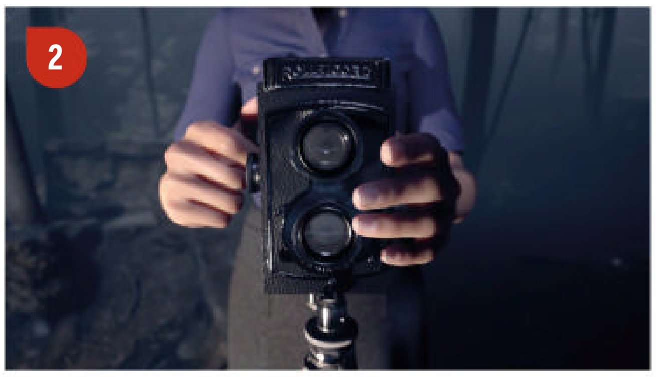
3 The darkroom, home of a simplified version of the development process. It's possible to mess up a print by getting it out of focus in the enlarger, or leaving it in the chemical bath for too long or not long enough. If you've ever taken down a boss using a QTE, you'll get it right every time.

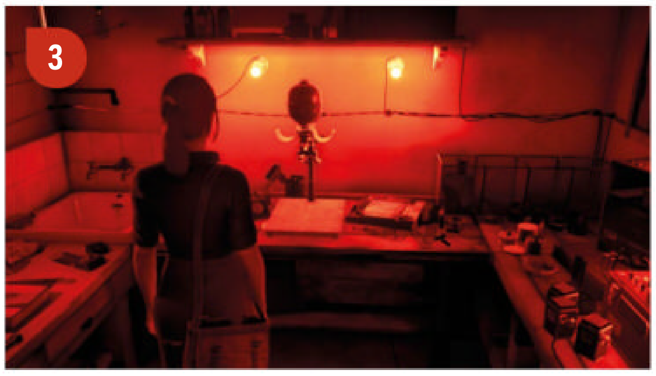
4 There he is, your dad. Being a Nazi general makes you sleepy, it seems. We wonder how our 21st century knowledge of the past will conflict with your character's love for him and acknowledgement of his feelings following the game's tragedy.

5 The island in the lake, where the White Lady was killed and her murderer hanged, and from where she sets out to take her revenge on the young women of the area despite the fact it was a man who killed her. Whether she's real, or just a ruse to keep girls in line, is something to discover.

6 The farmhouse is an extremely beautiful place, rendered naturalistically in contrast to the game's supernatural elements. You can almost feel the warmth of the terracotta tiles under your feet, and chasing wildlife around the gardens with your camera is a joy.







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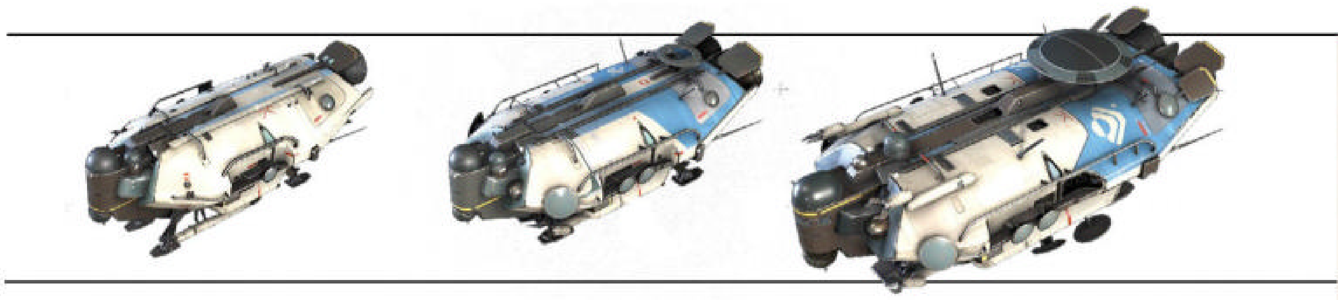


NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
First half of 2022	Bulwark Studios	Kasedo Games	dolos.org

IXION

Manage your space station as the last hope for humanity

You just test-fired the experimental engine on your orbiting space station and, well... it kinda blew up the moon. That's not even the worst bit of news you'll get today. In Ixion, you're managing a space station and its crew as things quickly go from bad to worse to utterly unthinkable.

The developer and publisher of *Ixion*, Bulwark Studios and Kasedo Games, walked me through the first half-hour of the city building and colony management sim, which serves as a tutorial and sets the stage for the calamity that will change everything. You're the administrator of the space station orbiting Earth, charged with getting things up and running: managing the power supply, maintaining the hull integrity, setting up supply lines, and building supplemental structures like crew quarters and science labs.

You'll also build a data listening service, which will eavesdrop on your crew so you can measure their morale, which sounds pretty draconian but not too far-fetched in the age of mega-corporations with space stations.

The crew will directly communicate with you to let you know what they need, such as more housing, infirmaries, and other requests. Keeping their trust in both you and the company is paramount to success, and just as important as keeping the hull in one piece.

And you'll also construct the massive Vohle Engine, meant to transport the station to distant galaxies so humankind can find a new home, now that the Earth has been rendered nearly uninhabitable due to pollution and a shortage of resources. But when that engine is tested for the first time, something goes horribly wrong and it shatters the moon, turning your mission into humanity's last hope of survival.

EARTH HAS BEEN RENDERED NEARLY UNINHABITABLE DUE TO POLLUTION

There are some pretty strong *Frostpunk* vibes going on in *Ixion*. Though you're in space instead of on Earth, you still represent the last hope of humanity as you search the galaxy for a new habitable planet. You'll constantly contend with shortages of resources, having to scour locations around the solar systems you visit to salvage parts, discover new technology and even add to your crew by finding cryogenic pods with frozen astronauts inside. If your station's crew get unhappy enough with your decisions, they'll go on strike, and if their trust in you doesn't improve they'll remove you from power, ending your game, similar to how you're thrown out on the tundra in *Frostpunk* if your citizens lose morale.

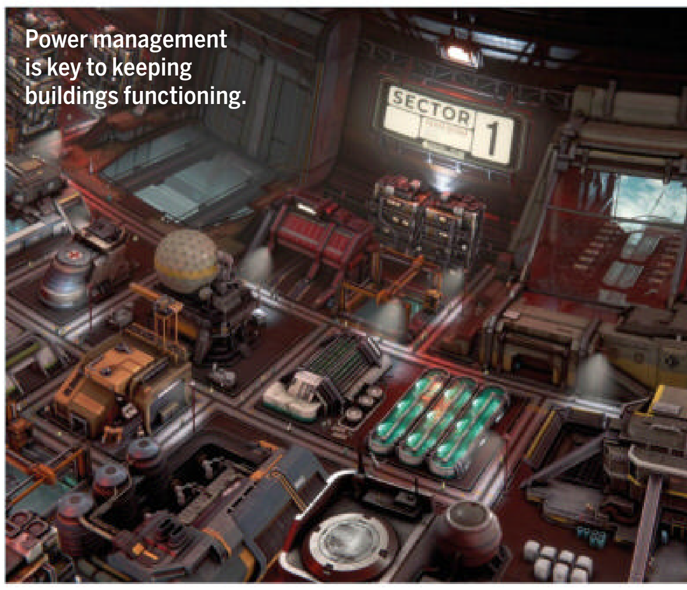
PLAYED IT

CHILLY GOTHS

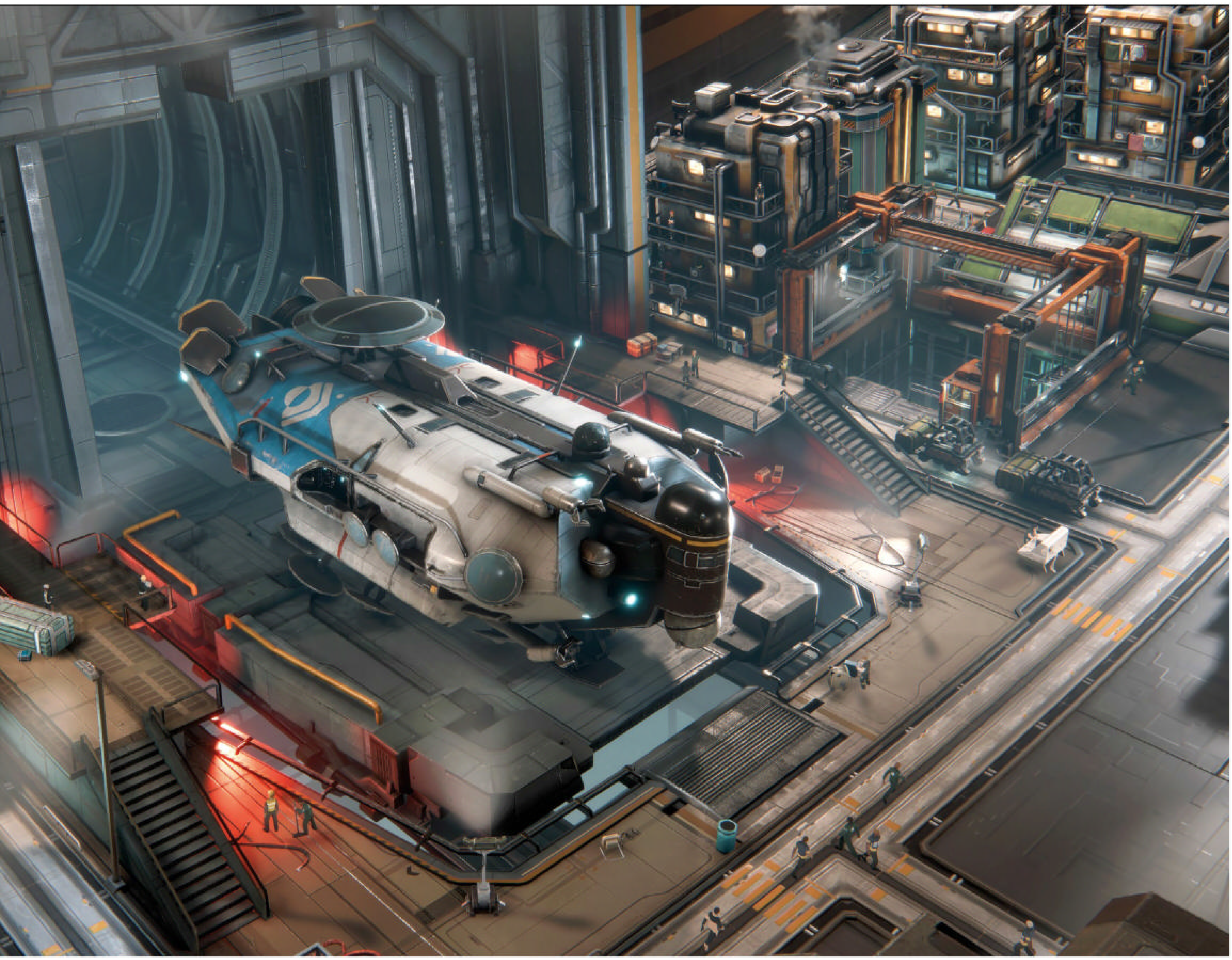
Another element that reminds me of *Frostpunk*: the act of charging up your interstellar engine to jump to new star systems will draw so much power from your ship that you'll have to scramble to keep everything running on limited power until the engine fires, which can take quite a long time. It makes me think of the harsh blizzards that would periodically sweep through your city in *Frostpunk*, leaving you to tensely hold your breath as you tried to survive adverse conditions through a period where new resources couldn't be gathered.

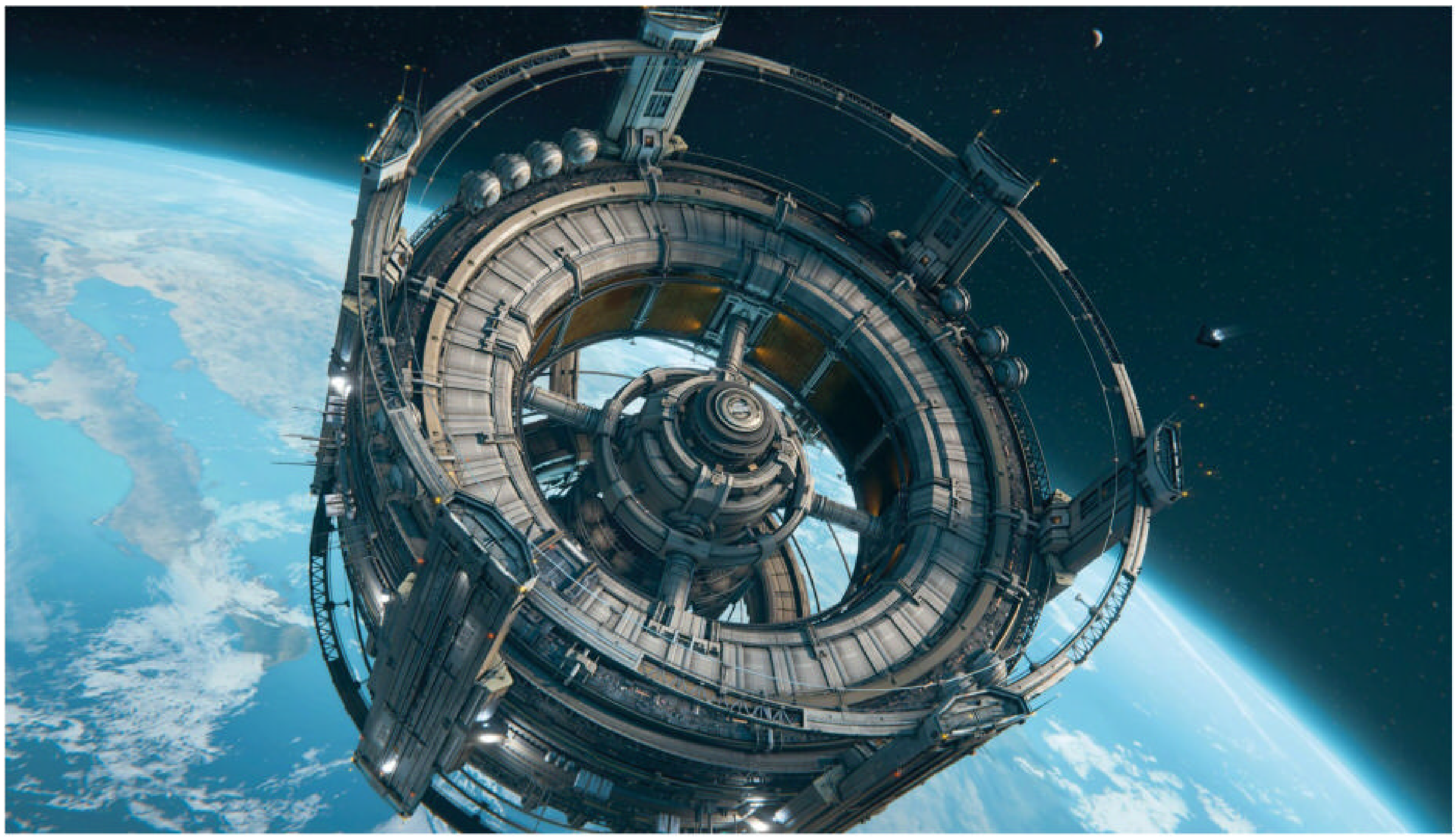
The destruction of the moon isn't even the extent of the catastrophe. When your engine fired that first time, your space station, rather than travelling through space, actually moved through time. You're still orbiting the half-destroyed moon, but it's several decades in the future. What happened on Earth and in the rest of the solar system? And what went wrong with the Vohle Engine? In *Ixion*, uncovering the mystery of the catastrophe is just the beginning.

Christopher Livingston



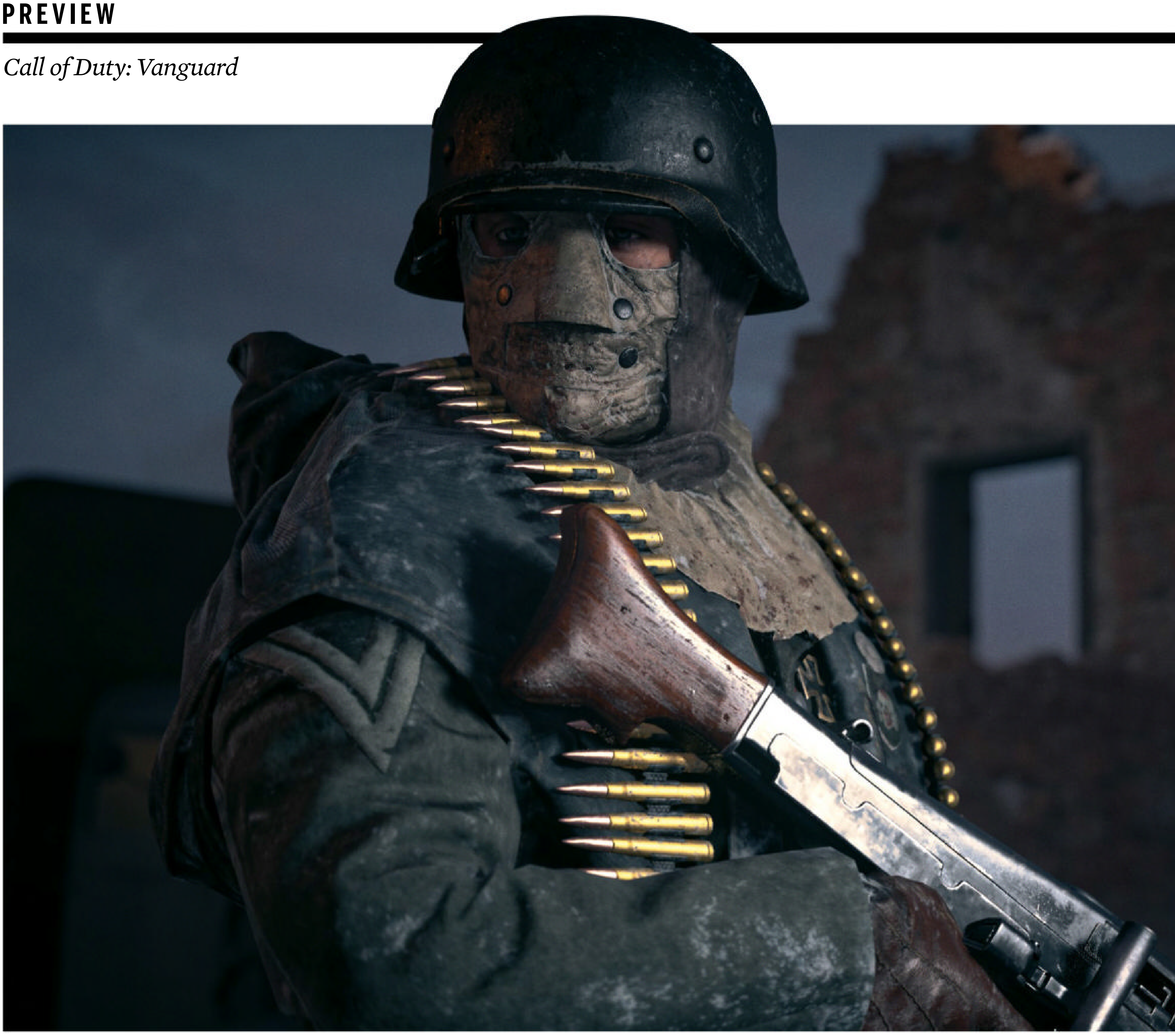
Power management is key to keeping buildings functioning.





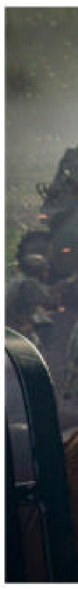
ABOVE: Build ships for mining and research expeditions.

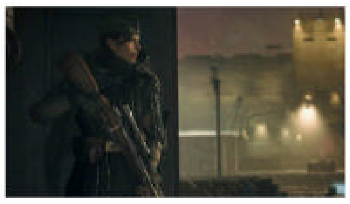
LEFT: You can even build modules for your station's exterior.

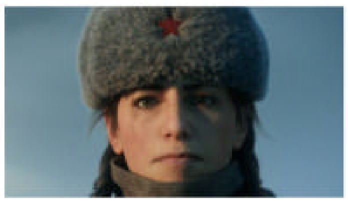


ABOVE: Gunsmith will make a return in *Call of Duty: Vanguard*.

RIGHT: *Call of Duty* is looking prettier than ever here.







NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
November 5, 2021	Sledgehammer, Treyarch	Activision	callofduty.com

CALL OF DUTY: VANGUARD

Sledgehammer's next WWII game follows the birth of special forces

After months of rumours about just what's going on with *Call of Duty* this year, *Call of Duty: Vanguard* has been confirmed as the next mainline game in the series. This new entry takes the series back to WWII with a campaign that lead developer Sledgehammer Games hopes will feel new to the series.

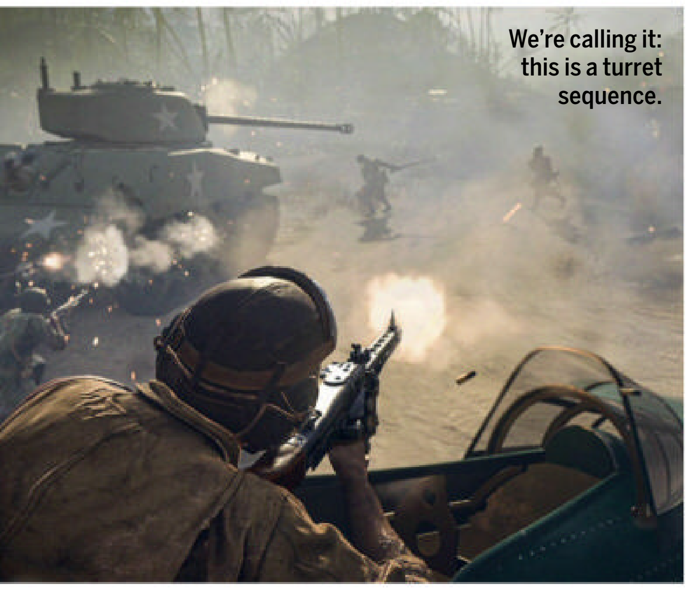
Sledgehammer, which hasn't led development on a *CoD* game since *Call of Duty: WWII*, is shaking things up by setting most of the campaign after the official end of the war. Hitler is dead, the Nazis have lost, but the Allies learn of a troubling plan (called Project Phoenix) to somehow facilitate Hitler's successor.

What the heck does that even mean? Your guess is as good as mine. *Vanguard*'s main villain is the fictional Heinrich Freisinger (inspired by the real Gestapo operative Heinrich Müller). In 1945, Hitler technically had a real successor: Karl Dönitz, who immediately surrendered and was eventually convicted of war crimes at the Nuremberg trials. So evidently there's at least a warping of history happening here.

Call of Duty is no stranger to campaigns about small special forces teams deploying into hostile countries, but *Vanguard*'s hook lies in this being a new concept at the end of World War II. To deal with this whole successor problem, the Allies deploy a squad of four specialists from four countries: Arthur Kingsley (Great Britain), Polina Petrova (Soviet Union), Wade Jackson (USA), and Lucas Riggs (Australia). I got a brief glimpse at *Vanguard*'s campaign during a closed press briefing. The mission shown comes early in the campaign, depicting Arthur parachuting behind enemy lines the night before the D-Day invasion.

Arthur barely survives the drop after his parachute burns up mid-fall, and has to scrounge around for a weapon, eventually looting a Kar98 from a dead soldier. What follows is a stealthy *Call of Duty* mission that you've probably played before: sneaking around, shooting once you can't hide any longer, all that good stuff. It was familiar, but what struck me was how brief each firefight was. The sequence played out more like a stealth action game than a conventional *CoD* level.

THE ALLIES LEARN OF A PLAN TO SOMEHOW FACILITATE HITLER'S SUCCESSOR



We're calling it: this is a turret sequence.

BY THE BOOK

It's a pretty effective demo, but it also seemed very scripted. Every movement and shot Arthur made was obviously choreographed. Heavily-scripted demos can be very effective for a game like The *Last of Us Part 2* when showing off the potential of the same scenario to go a different way, but I'm doubtful that's what I saw in *Vanguard*.

FIRST LOOK

It wouldn't be the first time a *CoD* campaign turned out to be less unique than a gameplay demo suggested. At a similar briefing held last year for *Call of Duty: Black Ops – Cold War*, we were shown a snippet of the stealthy mission inside KGB headquarters. The presentation suggested that it'd be an expansive map with lots of options to complete your goal. In reality, it played more like a bundle of linear objectives you could tackle out of order.

That's not to say *Vanguard*'s campaign won't be a good time – gunplay and animations look fantastic again (possibly thanks to the return of Modern Warfare's engine). In truth, most *CoD* fans won't really know how to feel until we know more about *Vanguard*'s multiplayer.

If the return to WWII seems too serious then you might be pleased to know that for the first time ever outside the core *Black Ops* series, Treyarch's *Zombies* storyline will continue in *Call of Duty: Vanguard*. Will this collaburation pay off? We'll find out when *Call of Duty: Vanguard* is released on November 5.

Morgan Park

WORDS *Wes Fenlon*

PHOTOS *Dabe Alan*

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Full Steam Ahead

Hands-on with the **STEAM DECK**, Valve's attempt to make your Steam library portable.

Pictures of the Steam Deck couldn't prepare me for seeing it in person. After working on the Steam Deck in secret for years, Valve invited us to its offices to be among the first to test out the handheld gaming PC, before game developers have even gotten their hands on it. And wow, is it big. This is the full tower PC case of videogame handhelds.

Once I actually picked up the Steam Deck, though, the size didn't seem to matter much. At 1.47 pounds it isn't too heavy to hold comfortably. It's wide, but the inputs are close enough to reach naturally. The button arrangement may look a little odd, but it fits how you grip the device. The Steam Deck is as big as it needed to be to pack in all the features Valve thought it should contain (which is basically everything, minus the CD drive).

Somehow it all fits in an 11.7-inch wide tablet. Spending a couple hours with the Steam Deck was convincing: it's not the first Frankensteined mash-up of PC and Game Boy, but it's easily the most polished and premium I've seen.

With Steam Machines, Valve tried and failed to sell PC gaming in the living room. But PC gaming anywhere? That's a harder pitch to ignore. And once I started using it, I could almost forget that the games I was playing were never designed for a portable machine.

BUTTONED UP

The ambitious goal with the Steam Deck is to be able to play the entire Steam library – that's more than 50,000 games – at launch via Proton, Valve's tool for running Windows games on the Deck's Linux-based SteamOS. "We tried to put enough types of input and ways to play on there, and make it all easy to use, so that anybody can find a comfortable way to play the game they want to play," says Valve designer Tucker Spofford.

It took me maybe ten seconds with the analog sticks to be certain I vastly prefer them to the Nintendo Switch's undersized joycons. They're much bigger, with a fluid rotation comparable to an Xbox stick. The face buttons are also a good size and comfortable to press as I pulled my thumb off the right joystick. Don't worry about that B button – it may look like it's hanging off the edge of the Deck, but in use it's no problem.

RIGHT: The Steam Deck runs on Linux.

BELOW: The triggers are chunky, tactile, and pleasantly wide.

Image credit: Valve

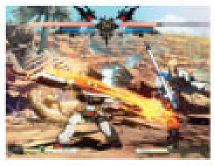
Library (4)
Portal
Portal 2
Portal 2 Beta
Portal 2 Authoring Tools
IN YOUR LIBRARY
Delete
Search
Shift
Tab
Caps
En

THE STEAM DECK FEELS LIKE A BIG, CONFIDENT STEP FORWARD FOR VALVE

TEST DRIVE

What we played on the Steam Deck

DEATH STRANDING
Kojima's game pushed the Steam Deck to its limits, and it was pumping out some heat to maintain 30 fps. But it was surprisingly playable, making me believe Valve's claim that the Deck can handle all they've thrown at it.



GUILTY GEAR STRIVE
After a couple crashes I got Guilty Gear to run on the Deck. It was slow to load from the SD card, but once it was running it looked great. Valve also had it running with a Bluetooth controller to highlight the Deck's versatility.

DEATH'S DOOR
Continuing the death theme, I played this delightful indie adventure, which felt mighty smooth with the Deck's analog stick. I expect to play a lot of indie games on the Steam Deck at 60 fps that can only run at 30 fps on the Nintendo Switch.

The analog triggers have a nice 'throw' to them, again reminiscent of the Xbox, and the shoulder bumpers are generously wide, letting you press them over a good inch and a half of real estate.

"We learned a ton when we were iterating with features on [the Steam Controller]," says designer Greg Coomer. "We even built ones with physical trackballs and all kinds of methods of doing capacitive input and touch. That went all over the place. Once we got to the Steam Deck, we felt like we had our desired inventory of controls. The iteration was on the physical form and where those things went."

GETTING TO GRIPS

I was impressed by how reachable everything felt from my natural grip. Valve says a lot of 3D printing and prototyping went into finding that sweet spot for comfort, including testing with their kids. "The device itself is large," says Spofford. "Part of that is just due to the fact that it's very comfortable to play with. In order to get that comfort, we needed a bit more space than you'd see on a Switch." After the funky ergonomics of the Steam controller, the Steam Deck feels like a big, confident step forward for Valve. But that only gets the device halfway. The big question still looming over the Steam Deck is whether Proton can really run tens of thousands of games without major bugs or performance issues. Can SteamOS finally offer up a gaming experience comparable to Windows?

PROTON POWER

Valve designer Greg Coomer is optimistic. He says that in the early days of working on Proton there were big categories of things – whole game technologies or media codecs – that didn't play nice with Linux. But those major hurdles have mostly been cleared. "There remain one-off problems that we still consider important… because people will want those games to function on Steam Deck," he says. "But we've managed to make our way through the largest category of those things and the ones

I WAS IMPRESSED BY WHAT I PLAYED OF DEATH STRANDING ON THE DECK

that remain we have pretty good confidence that we're going to be able to solve, like anti-cheat."

Compatibility doesn't necessarily guarantee great performance, but I was impressed by what I played of *Death Stranding* on the Deck. Even without much tinkering in the graphics settings, I was able to get a mostly consistent 30 fps in a big, modern open world game. The custom AMD hardware powering the Steam Deck (see page 42 for a technical breakdown) has some serious gaming muscle: it's roughly as powerful as a previous-gen console like the PS4, with the advantage of running at a lower screen res. And unlike other handheld PCs, the Steam Deck doesn't have to deal with the performance overhead of Windows.

SteamOS gives the Deck the flexibility of Linux – if you want to put it in desktop mode and use it as a portable PC, you can – and some of the advantages of consoles like the Switch that you just can't get in Windows. At the press of a button you can pull up the Steam menu, suspend a game, and hop back over to your library. You can also put the Steam Deck to sleep and come back to it hours later. "We actually worked with AMD on the low power state to make sure sleep and resume would work well. We're really happy with the speed of it," says Coomer.

Another button pulls up a quick settings menu reminiscent of the Switch's, giving you easy access to the system brightness and volume as well as toggles for wi-fi and Bluetooth.

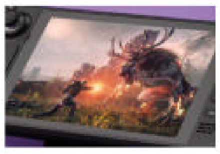
We've long been able to Alt-Tab on PC, but some games in Windows somehow still throw a fit (and they

STEAM POWERED

Where Valve may take the Steam Deck next

COLOURFUL CASING

It's just black at launch, but colour was hotly debated among the development team. Greg Coomer says, "We might do a lot more with that in the future."



DELUXE DISPLAY

The Deck uses an off-the-shelf display, which Coomer would like to improve, "The screen would be the centre of our focus in what we do different with a next version."

A LITTLE BIT MORE ZEN

Coomer says Valve isn't designing a Deck 2.0 yet, but they've "definitely talked with AMD about what [they'd] like to do next". Going up to Zen 3 mightn't be an issue.

RE-ARCHITECTED

Coomer says that "if the Steam Deck is really a hit, then I think that should drive the architecture of upcoming CPU/GPU/APU devices. And probably not just from ... AMD".

Image credit: Valve

LEFT: You can use the in-built controls, or connect up external controllers.

BOTTOM: The control layout is designed to cover as many different games as possible.

should feel bad). Here suspension and quick settings just work, making the Steam Deck feel like a proper console rather than a PC with joysticks bolted onto it (though I did manage to crash it by trying to launch a game while another was suspended – there are definitely still bugs to work out).

As Valve continues to refine Proton, plenty of games will just work, but there will also be ways for developers to optimise for the hardware in the future.

"There will be an API that developers will be able to call that says 'Is this Steam Deck? If so, use these settings," says Valve designer Lawrence Yang. He compares it to how many games already detect some basic info about your hardware, like monitor resolution, and adjust accordingly. Hopefully by launch many games will have updates with settings optimised for the Steam Deck, but the graphics settings will still be there for us to tweak by hand if we need to.

DIALING IN

Valve has work left to finish on the Steam Deck, mostly on the software side. SteamOS 3's new design looks great, but it isn't as seamless yet as a console UI and there are bugs to squash. The hardware isn't quite final, but I expect only minor changes that affect manufacturing and reliability.

According to Coomer, the Steam Deck team is now focused on how to speed up production in spite of the shortages affecting the entire tech industry. After Valve launched pre-orders, shipping estimates quickly stretched out to mid-2022.

"If only it was as simple as building out more factories and staffing them, we'd have a lot of good news for people who want a Steam Deck this year," he says. "We're very happy with the level of demand, but it also just makes our job much clearer. We really ought to deliver devices sooner than we have told customers we'll be able to. So we're working on ways we might be able to do that."

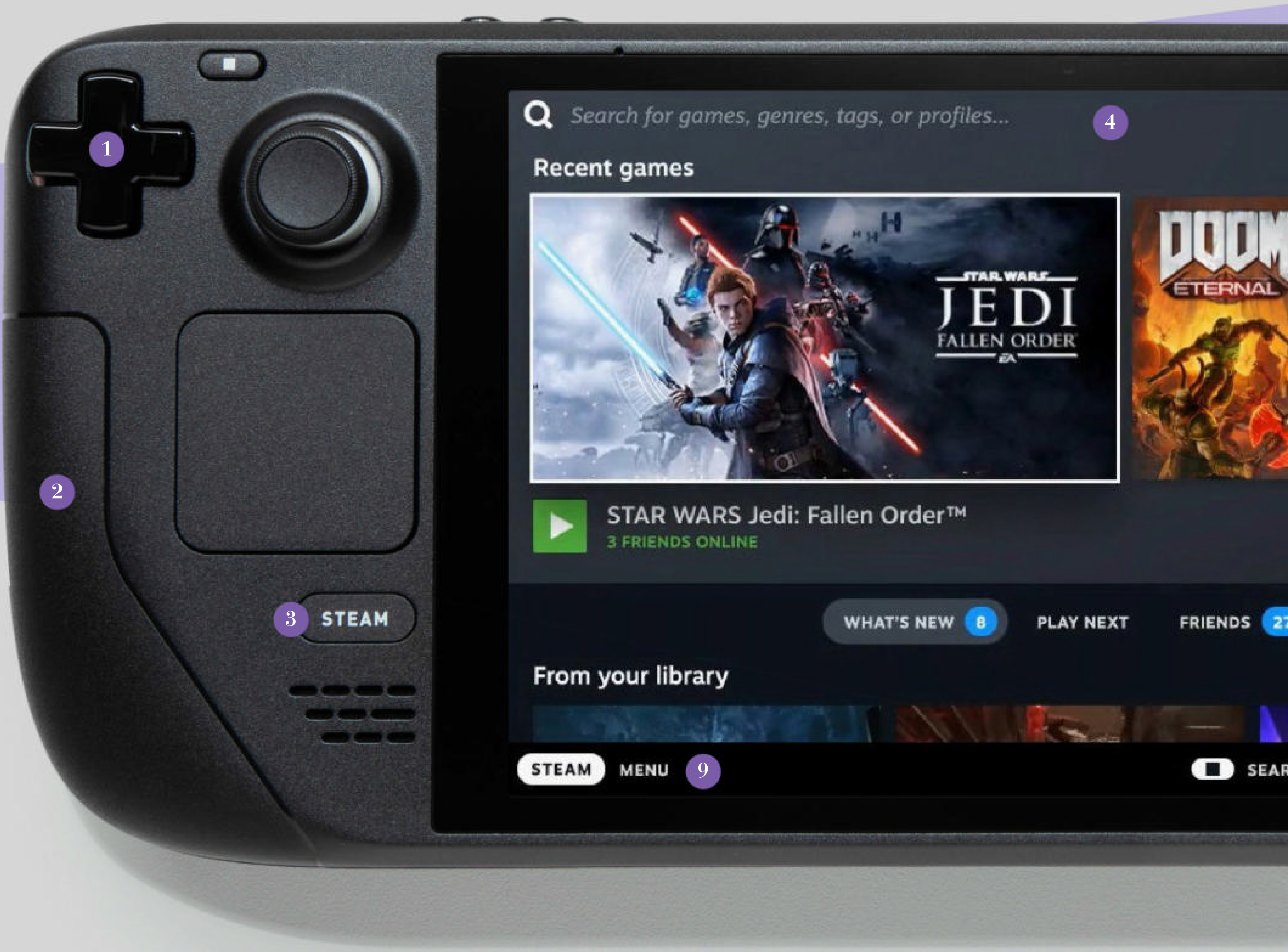
After spending a far-too-brief couple hours with the Steam Deck, I don't think it's a straight replacement for the Nintendo Switch. Its bigger size isn't quite as ideal for tossing in a backpack, but as a portable PC it's truly impressive. If SteamOS can pull off the compatibility and performance Valve's aiming for, we're going to be spending a whole lot less time at our desks next year. PC Gamer cruise, anyone? ■

1 D-Pad Valve says one of the Deck's key designers is a diehard fighting game fan, so this d-pad got a lot of love. It's clicky and, most importantly, rocks from the centre so you can pull off sweeps and quarter circles with ease.

2 Grips The Deck's top-heavy button placement makes sense as soon as you hold it. The sculpted sides encourage you to cradle it near the top, and give you a lot more to grip onto than the Switch's flat joycons.

3 Steam button The Steam button gives the Deck the console-like power to suspend games and jump back to your library or go into sleep mode. Think of it as a supercharged Steam overlay.

4 Display With a 1280 x 800 native resolution the Valve has opted for a slightly unusual 16:10 aspect ratio rather than the more regular 16:9. Though the low-res screen still won't be super demanding on the hardware inside.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STEAM
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Search for games, genres, tags, or profiles...
Recent games
STAR WARS JEDI FALLEN ORDER
DOOM ETERNAL
STAR WARS Jedi: Fallen Order™
3 FRIENDS ONLINE
WHAT'S NEW 8
PLAY NEXT
FRIENDS
From your library
STEAM
MENU
9

Tech specs

Let's break down the Steam Deck and see exactly what makes it tick.

By Dave James & Wes Fenlon

8 Storage The Steam Deck houses either 64GB of eMMC storage, or either a 256GB or 512GB NVMe SSD. You can also store an extended library on SD cards, though the speed will be lower than onboard storage.

9 SteamOS SteamOS 3.0 is the latest version of Valve's operating system, but with updates to its Proton compatibility layer, the promise is for the Deck to run every game in your library whether it's meant for Windows or not.

5 The CPU side

The AMD APU, formerly code-named Van Gogh, contains both the CPU and GPU. On the CPU side we're talking last-gen Zen 2 silicon, but with four cores and eight threads, at a peak 3.5GHz, it's still impressive mobile tech.

6 The GPU side

Where the CPU may be last-gen, the graphics cores are current-gen. These are the same RDNA 2 GPU cores that make up both the PS5 and Xbox Series X/S. Though with just eight compute units instead of 52.

7 Memory

The Deck is one of the first devices to use LPDDR5 memory, a low power, high-speed set of RAM, running in quad-channel mode to boost the available bandwidth. And that is something which AMD APUs love.

SPECS AT A GLANCE

CPU	AMD Zen 2
Core count	4-core/8-thread
CPU clock speed	2.4–3.5GHz
GPU	AMD RDNA 2
GPU Compute Units	8
GPU clock speed	1–1.6GHz
RAM	16GB LPDDR5 @ 5,500MT/s
Storage	64GB eMMC / 256GB NVMe SSD / 512GB NVMe SSD
Display	7-inch LCD touchscreen
Resolution	1280 x 800
Refresh rate	60Hz
Audio	Stereo speakers, 3.5mm jack, dual mics, USB Type-C/ Bluetooth
Connectivity	Wi-Fi, Bluetooth, USB Type-C with DisplayPort 1.4 support
Battery	40Whr
Size	11.7 x 4.6 x 1.8-inch (298 x 117 x 49mm)
Weight	Approximately 1.47 lbs (669 grams)
Price	£349 (64GB) / £459 (256GB) / £569 (512GB)

1:14PM
CONTROL
ULTIMATE EDITION
NO MAN
Y
X
B
A
OPTIONS
A
SELECT
11

10 Windows 11

You don't have to stick with SteamOS, however, as Valve has promised that you can install Windows on there if you so wish, and that "there's nothing to indicate to us yet that there'll be any issues with Windows 11".

11 Finish

At launch there will only be a black version of the Deck, because having multiple colours is just too complicated. But if it proves popular we've been told "there's tons of opportunity" for different colours later.

12 Upgradeability

Technically it will be possible to upgrade the storage in your Deck, but Valve has suggested you shouldn't as taking the thing apart isn't recommended. It has teased it may release more info on that front soon, though…

13 Ecosystem

This isn't the first handheld gaming PC, but it is the most affordable. And, along with SteamOS 3.0, the company is hoping that it can encourage other manufacturers to create their own versions.

Steam Deck vs Nintendo Switch

The new kid on the block taking on the undisputed monarch of the gaming handhelds. ***By Dave James***

VALVE STEAM DECK

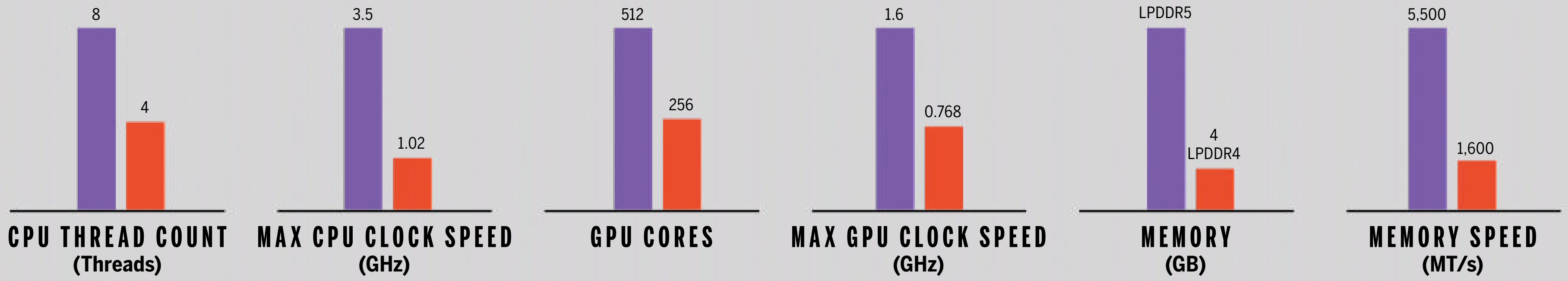
The Steam Deck is a whole gaming PC that you can hold and control in two hands. That's both its biggest strength and potentially its greatest weakness. It means there is a huge back catalogue of games available to the Deck, starting with Steam itself, but stretching out to every other PC gaming store front out there, all delivering games to your handheld machine. But there's the potential issues with Linux game compatibility for its SteamOS, and the fact that it feels like a genuinely hefty system to hold for a long gaming sesh.

IN SHORT

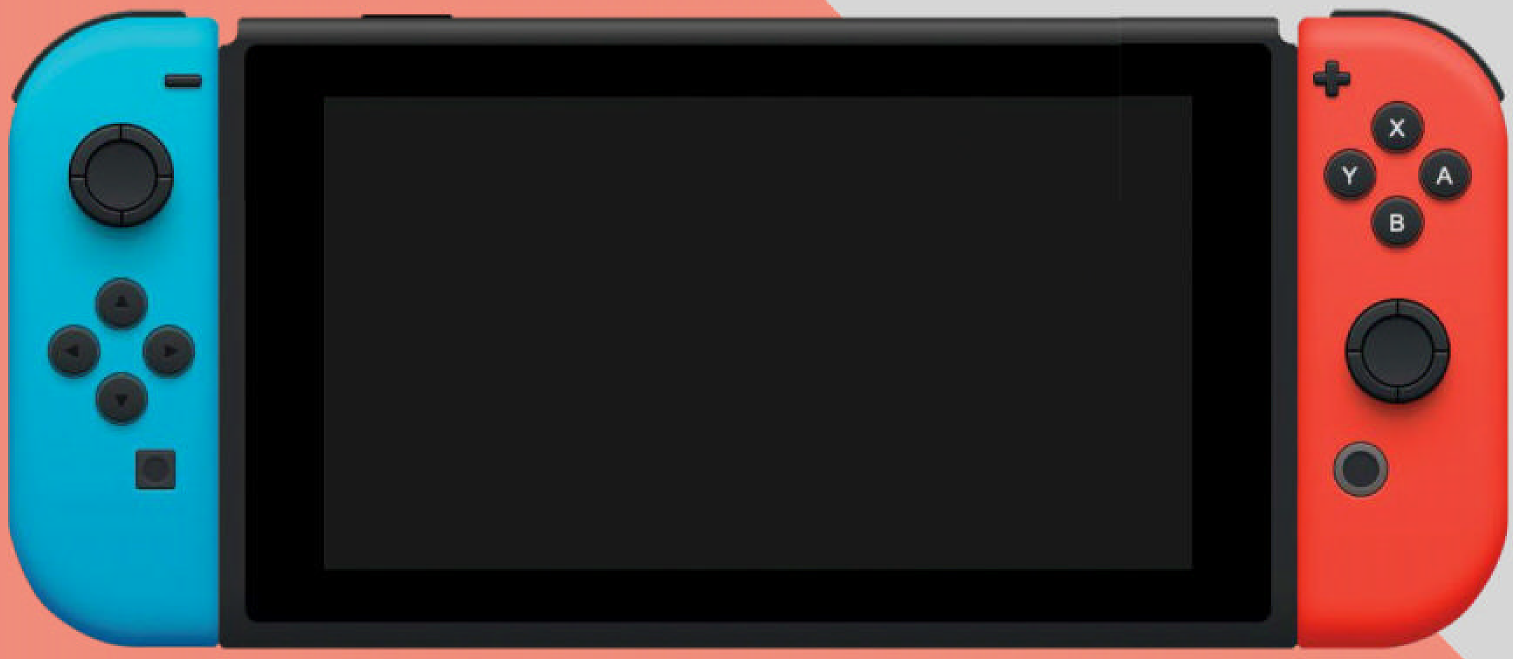
- ⊕ Access to the biggest game catalogue around
- ⊕ Impressive-looking AMD APU
- ⊕ LPDDR5 could be a game-changer

- ⊖ Some games not optimised for Deck or SteamOS
- ⊖ Likely less accessible to use
- ⊖ Bulky and heavy

STAT COMPARISON



> THERE IS A HUGE BACK CATALOGUE OF GAMES AVAILABLE TO THE DECK



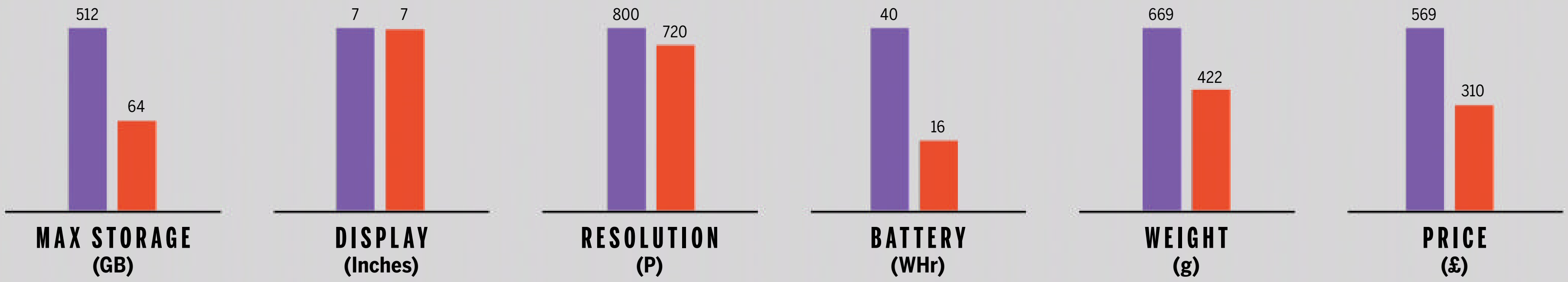
NINTENDO SWITCH

IN SHORT

- ⊕ Games made specifically for the Switch
- ⊕ Boosted when docked
- ⊕ Great price

- ⊖ Weak hardware
- ⊖ Poor thumbsticks and triggers
- ⊖ Low battery life

Nintendo is the master of the handheld games machine. We'll forgive the Wii U for the legacy of the Gameboy, DS, and now the excellent Switch. Nintendo has always played its hardware game smart, by making its devices affordable with tech *just capable enough* to deliver on the promise of the system. With first-party games being made specifically for the limits of its internal components you never feel like compromises have been made... until you hit cross platform titles, that is. That's when you can see how the Switch's lightweight tech struggles.



Are we buying a Deck?

The positivity, perils and pitfalls of the Valve's great hope for handheld PC gaming

Image credit: Valve

DAVE JAMES

Hardware Lead

I'm not sure if it's a symptom of the patented Gabe Newell Reality Distortion Field, but I'm a whole lot more positive about the Steam Deck now than I was when it was first announced. It's normally the other way around, getting dragged on by the hype machine before the devil in the details convinces me otherwise.

I'm actually loving the chonky look of it, the AMD-based hardware has a lot of potential with its LPDDR5 backup, and SteamOS 3.0 and Proton could genuinely bring Linux gaming to the masses. But there is one potential sticking point that's going to have to be ironed out for the Deck to be the sort of broad appeal success Valve seems to think it will be. That issue is optimisation.

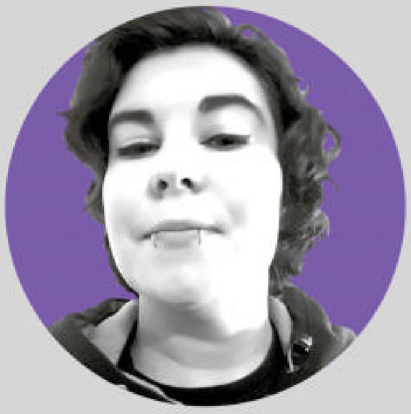
> THE AMD-BASED HARDWARE HAS A LOT OF POTENTIAL WITH ITS LPDDR5 BACKUP

The Deck is playing games designed to look their best on an RTX 3080, and while the beauty of the PC is its versatility and the fact game settings can be tweaked so almost any level of machine can get in on the experience, the Deck's users are going to need some outside help to ensure a great out-of-box experience. If Valve can create some sort of GeForce Experience-like app, which can automatically adjust installed game settings for the best performance, then its hopes of a pick-up-and-play console for anyone could well be a reality.

BATTERY COMPARISON

How far can you get on the Steam Deck's eight hours of battery?

8%	9%	10%
THE WITCHER II	CRUSADER KINGS III	DIVINITY : ORIGINAL SIN II



KATIE WICKENS

Hardware Writer

I have to say I'm impressed with the graphically intensive games Valve promises I'd be able to play with the Steam Deck. But for short gaming stints – which is what, unless I find myself on a flight to Fiji anytime soon, I imagine portable gaming would involve for me – I tend toward less intensive RTS and simulation games. I'm too easily distracted to get into a fully voice-acted RPG when I'm out and about.

That leaves me at an impasse, because I just can't imagine playing *Cities: Skylines* on the weird trackpad setup Valve has opted for. And I remain unconvinced that the touch screen could handle precision junction design. In fact, most of my games don't lend themselves to the control scheme, and I feel like bringing a mouse and keyboard out with me would defeat the object of going portable.

> I JUST CAN'T IMAGINE PLAYING CITIES: SKYLINES ON THE WEIRD TRACKPAD

Getting back into analog stick-bound games would involve me spending more money on top of the £350 - 570 already forked out for the Deck. And being one of those gamers that will happily rotate through a minuscule selection of games, I'm probably not looking to branch out soon. Maybe someday I'll be in the kind of headspace where I'll want to play *The Witcher* at the beach. But right now that control scheme is a bit of a dealbreaker for me.

JACOB RIDLEY

Senior Hardware Editor

When Valve announced the Steam Deck, my first thought was to pour one out for all the handheld gaming PCs that came before it. It wasn't so much the modicum of gaming performance at 720p that had me taken aback so much as the surprisingly low price. While I'm not all that convinced by the effectiveness of a 64GB gaming PC, not even one I can fit in a bum bag, even £459 for the 256GB version makes most previous handhelds appear like an extravagant luxury.

The more I read about the Steam Deck, too, the more I've started to come around to it as a gaming device. That feels partially down to Valve's experience with failed Linux gaming machines past. Valve appears not to be making the same mistakes twice, and already is showing its commitment to improving Linux on AMD systems ahead of the handheld's launch. If it can get its compatibility layer for gaming, Proton, in order, gaming on Linux should become a breeze in a predominantly Windows PC world.

> THE MORE I READ ABOUT THE DECK, THE MORE I'VE STARTED TO COME AROUND TO IT

So while I'm still not wholly convinced I will cash in my deposit for a Steam Deck sometime in 2022, I have at least made one. I feel that's symbolic of my hope that Valve, at some point, will prove handheld PC gaming a worthwhile venture.

27%	39%	40%	100%
DISCO ELYSIUM	DISHONORED 2	OUTER WILDS	TITANFALL 2

ABOVE: *Stardew Valley's* not being emulated here, but isn't this a nice shot of the hardware?

Emulate everything

Can one handheld play them all? ***By Wes Fenlon***

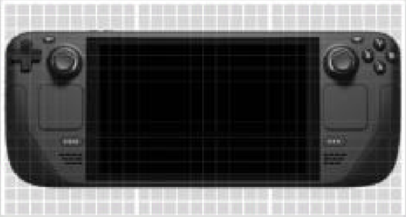
Why stop your Steam Deck gaming with your Steam library? Dream bigger: Valve's handheld PC will also be able to play retro and modern consoles games thanks to emulators, most of which run natively on Linux. It has the potential to be the greatest emulation device ever made.

"Everyone I know has relatively high hopes for the Steam Deck," said JMC4789, a contributor to GameCube/Wii emulator Dolphin. JMC4789 is optimistic about how well Dolphin could run on the Steam Deck, and so are the developers of Switch emulator Yuzu. "We believe that the hardware should likely be capable enough to run some games pretty well right out of the box, and potentially run Yuzu very well with optimisations to the emulator," the developers said.

Emulators sometimes have issues with AMD's Windows drivers, but it's a different story on Linux. The open source drivers for AMD on Linux are "excellent," according to the Yuzu team, and at the Steam Deck's screen resolution, its GPU will be more than up to the task. Emulation pushes the CPU harder because your processor is doing a lot of work to replicate the behaviour of that different CPU architecture; it's impossible for it to be as efficient as the original hardware. But Zen 2 should be powerful enough to run most emulators with better-than-console performance. Emulators may need UI overhauls to play nice with the Deck's screen and controls, but "the potential is really high," said JMC4789. "The hardware sounds too good to be true, but Valve can kind of get away with selling the hardware at a loss and banking on software sales. A mobile device that's essentially a near gaming PC? If that's what it is, then it'll be great."

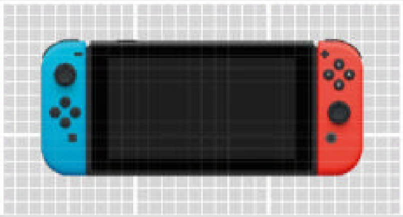
> EMULATORS MAY NEED UI OVERHAULS TO PLAY NICE WITH THE DECK'S SCREEN AND CONTROLS

SIZE COMPARISON



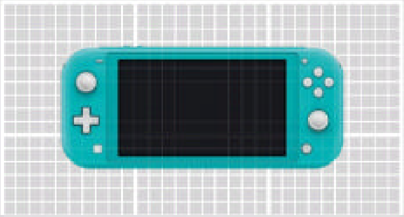
STEAM DECK

LENGTH: 298MM / **WIDTH:** 117MM / **WEIGHT:** 669G



NINTENDO SWITCH

LENGTH: 238MM / **WIDTH:** 102MM / **WEIGHT:** 398G



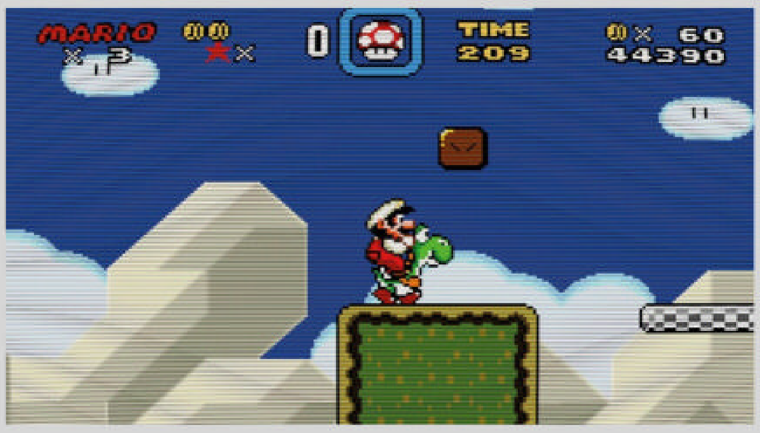
SWITCH LITE

LENGTH: 208MM / **WIDTH:** 91MM / **WEIGHT:** 277G

PLAYSTATION VITA

LENGTH: 184MM / **WIDTH:** 85MM / **WEIGHT:** 219G

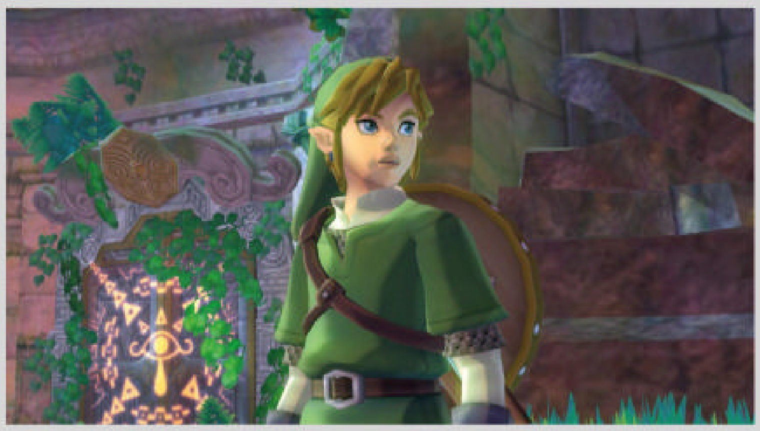
Image credit: Valve



SUPER MARIO WORLD

on BSNES

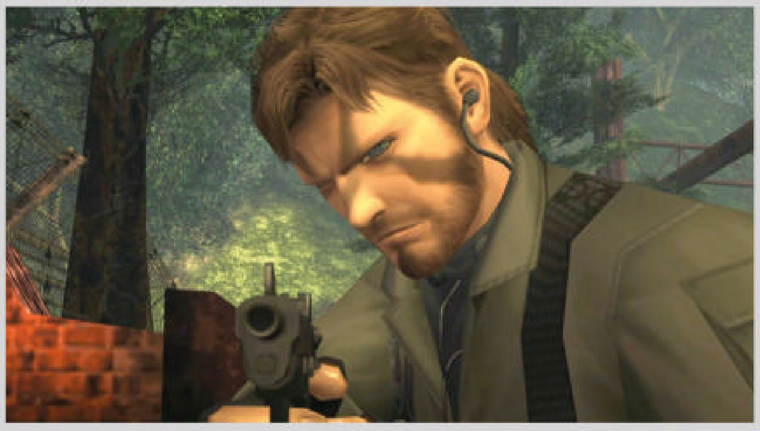
1 It doesn't get more classic than *Super Mario World*: it's replayable anytime, anywhere. The PC sadly only saw educational Nintendo games like *Mario is Missing*, but the Steam Deck will easily be able to play the entire Super Nintendo library through bsnes. Here it's running with a CRT filter meant to imitate how the game once looked on a TV. Bsnes creator Near died earlier in 2021, but now other devs have picked up the torch.



ZELDA: SKYWARD SWORD

on Dolphin

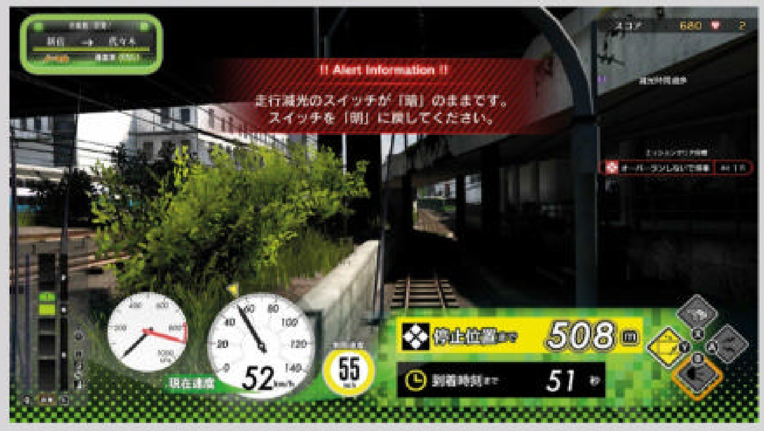
2 Sure, there's a newer Switch port, but run the Wii original of *Skyward Sword* by adding Dolphin to your Steam library and you can mess around with Steam Input. The Deck's trackpads and gyro controls should be able to sub in for a Wiimote, but you could also sync an actual Wiimote to the Deck via Bluetooth if you want to get crazy. Having portable access to the entire GameCube and Wii libraries on the Steam Deck is going to be excellent.



METAL GEAR SOLID 3

on PCSX2

3 *Metal Gear Solid 3* tragically never made it to PC, but it's the best version of the series' classic stealth play and perfectly overwrought cutscenes. The kitschy '60s James Bond feel meshes perfectly with Kojima's style. *MGS3* has the best villains, a genuinely great relationship between Snake and The Boss, and that damn legendary song. Thankfully it runs beautifully on PCSX2, along with most of the rest of the extensive PlayStation 2 library.



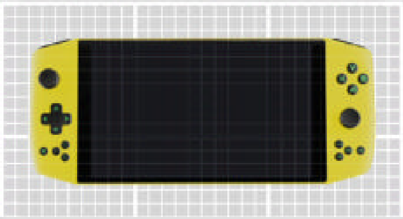
DENSHA DE GO!!

on Yuzu

4 What, you don't want to use a Switch emulator specifically to play a Japan-exclusive train simulator? Switch emulator Yuzu is young, but it's already able to run most of Nintendo's first party games like *Breath of the Wild*. While it can't yet run games at higher resolutions like Dolphin, that's perfect for the Steam Deck's 1280x800 LCD. Before long the Steam Deck will run Switch games with nicer frame rates than the Switch.

GDP WIN 3

LENGTH: 198MM / **WIDTH:** 92MM / **WEIGHT:** 550G



AYA NEO

LENGTH: 255MM / **WIDTH:** 106MM / **WEIGHT:** 650G

IPHONE 12 PRO MAX

LENGTH: 78MM / **WIDTH:** 161MM / **WEIGHT:** 228G

GAME GEAR

LENGTH: 210MM / **WIDTH:** 113MM / **WEIGHT:** 558G

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THE DUNGEON MASTERS

How **D&D** shaped every corner of PC gaming.

By Jeremy Peel

It explains a lot about Warren Spector, the driving force behind *Deus Ex*, that his first dungeon master was the author Bruce Sterling. Not only was Sterling destined to become one of the fathers of cyberpunk – the science fiction genre that spliced future tech with social commentary, just as *Deus Ex* would – but he was a generous and accommodating DM.

"What was most powerful about that first night, and all the nights that followed for the next ten or so years, wasn't the story Bruce was telling to us," Spector says. "It was the story my friends and I were telling with him."

Spector's head still swims with memories of the Rat Gang, the street crew he ran with as Botara Chitan, a samurai who never smiled. He remembers the way the gang fought and grasped and became a real power in the river city of Shang, and how the campaign ended with... well, he won't tell us how it all ended. "I'll get too emotional," he says, "and embarrass myself."

Like all good dungeon masters, Sterling understood that his role was to create the scaffolding of a story, an obstacle course that left enough room for players to pick a route through, whether that meant clambering over the top or crawling beneath. As Spector and his friends overcame the challenges Sterling set for them, they made choices that felt significant.

Decisions that belonged to them.

"If that doesn't sound like the kind of videogame I've basically been screaming about for the last few decades, I guess I'll just have to scream louder," Spector says.

"All I've ever wanted to do was give people a taste of what I felt playing D&D."

ORIGIN STORY

After a brief spell at D&D's publisher in the '80s, Spector set about applying his love of shared authorship to PC games, working under Richard Garriott at Origin Systems.

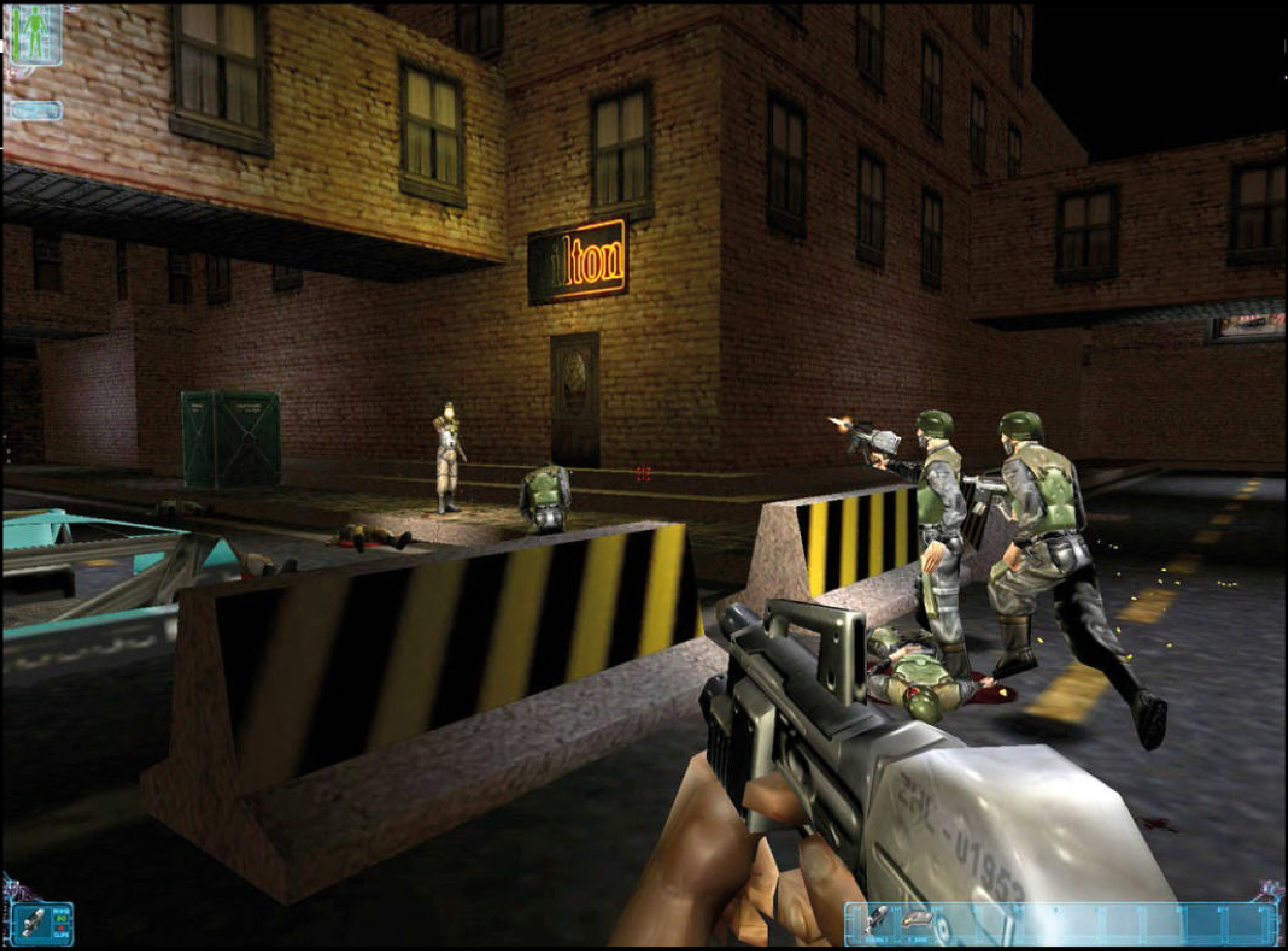
"I think D&D influenced everyone in the computer game business back in the '80s and '90s and that was certainly true at Origin," he says. "The *Ultima* games were about more than killing monsters and grabbing treasure. They were about embodying an avatar that was, basically, you, the player, deciding how to interact with the world based on your own desires and ideas as a person in the real world. You weren't trying to guess what your character would do or what the designer wanted you to do. It was you making the calls. It was all pretty primitive back then, but it was heading in the right direction."

I THINK D&D INFLUENCED EVERYONE IN THE COMPUTER GAME BUSINESS BACK IN THE '80S AND '90S

As a producer on the early games of Looking Glass, the developer behind *System Shock* and *Thief*, Spector had a hand in defining the immersive sim genre. Though these games looked more like first-person shooters than any tabletop adventure, they did exactly as a DM would – present the player with an obstacle, then try to accommodate their most imaginative solutions.

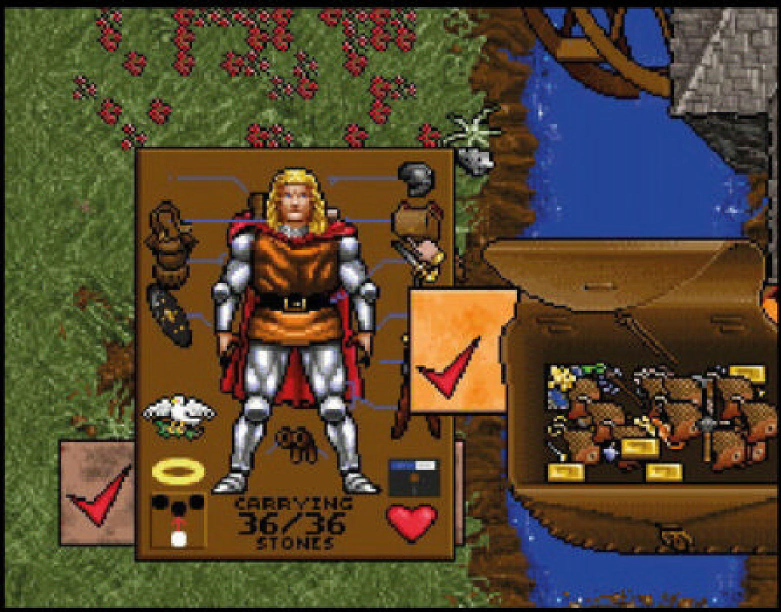
"The idea is to allow players to do anything they want and not disappoint them," Spector says. "Ideally, the game should never figuratively say, 'I don't know anything about that.' Something logical should happen no matter what players do."

Spector began banning his teams from using the word 'puzzle', which implied a single solution, and



ABOVE: These walls are filled with shafts, built not for ventilation but player choice.

RIGHT: Warren Spector produced the second part of the hugely influential *Ultima VII*.



encouraged them to think up ‘problems’ instead. He told them to “get off the stage, so players can get on it”. It’s an approach that led directly to *Deus Ex*.

“*Deus Ex* was about solving problems the way you wanted,” he says. “It was about trying things, experimenting, expressing your creativity, and then dealing with the consequences of your choices.

“The story, as much as people seem to like it, is really there just to provide context, significance and structure to the player’s minute-to-minute choices. That’s totally D&D in a nutshell.”

PLAYING IT WRONG

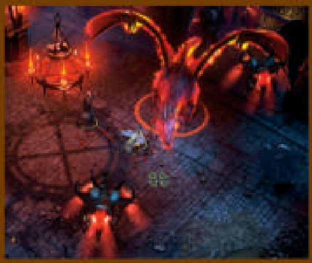
Once *Deus Ex* was built, Spector was delighted to discover that it recreated a great, subversive joy of the tabletop: stumping the DM. “There were plenty of times I watched *Deus Ex* players encountering a problem and trying something I’d never seen anyone try before, and found myself wondering, ‘Is that going to work?’” he says. “And then, whether it worked or not, having the game respond in a logical way? Man, that was powerful. And all D&D.”

In the years since, the designers who worked under Spector have disseminated across the games industry. One, Emil Pagliarulo, led design on *Fallout 3* and *4*. Another, Kent Hudson, became game director of *Watch Dogs: Legion*. Many are now at Arkane, working on *Deathloop* and *Redfall*. All have embraced some variation of the dungeon master role, forefronting creative problem solving in their games, which in turn have taken over PC gaming.

Still, Spector thinks some developers get the wrong end of the stick. “A lot of RPG developers think roleplaying is about character classes and skills and abilities and stats and secret die rolls,” he says. “That’s true of D&D, but only because those were the only simulation tools Gary Gygax and Dave Arneson had.

TOP OF THE TABLE

PC gaming’s favourite pen and paper worlds



PATHFINDER

While rooted in D&D’s third edition rules, Pathfinder’s fantasy world had identity enough to spawn a popular RPG, *Kingmaker* – which has in turn spawned a brand-new sequel.

CYBERPUNK

Mike Pondsmith’s legendary sci-fi setting went decades without any representation on PC. But CD Projekt Red made up for it by pouring all its *Witcher III* cash into a lavish, if flawed, blockbuster.

WORLD OF DARKNESS

Is vampirism a curse? A cancelled World of Darkness MMO from the makers of *Eve Online*, not to mention the development hell of *Vampire: The Masquerade – Bloodlines 2*, would suggest so.

Videogames can and should be about roleplaying, not roll-playing."

ROLL OUT

Of course, there's no reason games can't do both. Bioware, which worked on three officially licensed D&D games, was understandably preoccupied with reproducing the tabletop ruleset – down to the 1d4+1 damage caused by a magic missile. Yet its origin point wasn't so different to Spector's, and yielded just as much inspiration.

Half the key characters in the *Baldur's Gate* games – including their villains, as well as fan favourite companions like the psychopathic red wizard, Edwin – were initially player characters in a D&D campaign run by designer James Ohlen. "While he was in high school he owned a comic book store," recalls Bioware cofounder Trent Oster, "and he would run play sessions upstairs." Programmer Cameron Tofer played Minsc, but fumbled his Intelligence roll – and so birthed the breezily braindead barbarian we know and love today. Ohlen was ultimately hired by Bioware almost by default, despite having no development background – he was the DM, and the party needed him. By the time he left the company 22 years later, he was its senior creative director.

After *Neverwinter Nights*, Bioware moved on from D&D – but the influence of its min-maxing ruleset could still be felt in *Knights of the Old Republic*, *Dragon Age*, and the RPG industry that grew around the studio.

HALF THE KEY CHARACTERS IN THE BALDUR'S GATE GAMES WERE INITIALLY PLAYER CHARACTERS IN A D&D CAMPAIGN

TOP: *Neverwinter Nights* is the Hollyoaks: After Hours of D&D game titles, if we're honest.

What's more, those rules came with a worldview.

"It's almost a philosophical thing," Oster says. "The concept of the group being mighty because of the combination of different abilities, backgrounds, and viewpoints. D&D preaches the bible of diversification, and it always has. You realise that the group is greater than the one."

It's an idea that resonated with the public, particularly when *Mass Effect* leaned into the emotional – even romantic – connection with the party. Today, the concept of the RPG companion is a widely understood part of pop culture, rooted in Bioware's appreciation for D&D.

You could say the same for the famous moral choices that pepper the studio's games. First popularised by *Knights of the Old Republic*, on which Ohlen was lead designer, they can be clearly traced back to D&D's alignment chart – which judges every character as good, neutral or evil.

"The concept of good and evil was a big thing at Bioware," Oster says. "Most games at that point were really focused on you doing the right and just thing, whereas almost everything we did allowed you to try being bad. That duality came out of pen and paper. When you're playing D&D, sometimes your party are jerks, and your DM lets you roll and see where it goes. A lot of that player freedom came from those D&D roots."

IMPENDING DOOM

id Software's dungeon master, John Carmack, allowed his party to be jerks. But he pulled out the ultimate consequence in response – the end of the world.

"Yeah, that was my fault," says *Doom* designer John Romero. "I was greedy and underestimated the power of demons." When the party came across a pentagram in its adventures, the summoned demon trapped inside tempted Romero with powerful items in return for its freedom: a +5 sword, a ring of regeneration, and a ring of invisibility. "I wanted that stuff badly," Romero says. Once freed, the demon made good on the deal, but offered a few ominous words, "It won't matter anyway. We're taking over this world."

"We all spent the next month battling demons, hiding, watching powerful heroes lose the fight, and eventually the world was wiped out. That was the last time we played D&D together."

It may have been a cruel conclusion to the party's journey, but Romero insists that Carmack was a "very fair DM" who was "true to his own rules". "He was always rolling secret dice because there were so many ways that things could go wrong or be revealed," he says. "A random chance encounter could happen. There was never a dull moment."

It was Carmack who lost most in the demonic fire – a huge, personalised world of at least 100 NPCs operating their own schemes. Yet his loss was our world's gain, since those D&D sessions inspired the premise for *Doom*, a game about a Martian base overrun by invaders from hell.

"We never thought that the D&D games we were playing would end up influencing our game designs," Romero says. "It just flowed easily and was enthralling. We all liked playing together. No one pored over stat sheets, and no battle or rewards were held up due to some arcane rule lawyering. D&D was yet another way that we gelled as a team."

SHAKE UP

One of Carmack's NPCs was called 'Quake'. He belonged to a group called the Silver Shadow Band, which worked for an organisation named Justice.

DUNGEONS & JARGON

A handy glossary of weird tabletop terminology

"GROGNARD"
A player who prefers the company of the older editions, thank you very much. Doesn't need your newfangled 'short rest' mechanics.

"SKILL MONKEY"
A party member who primarily shines off the battlefield – perhaps as a linguist, thief, or survivalist.

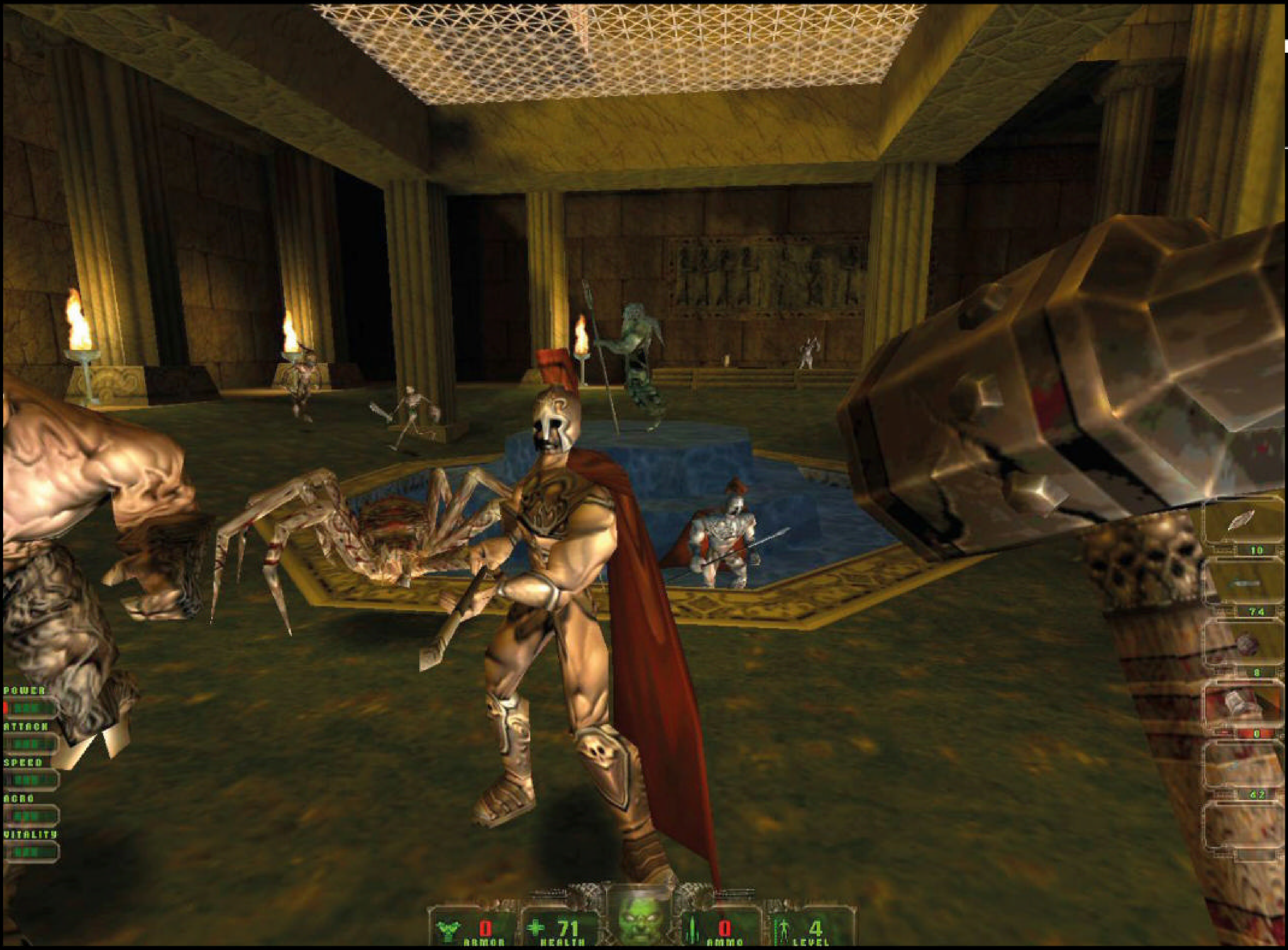
"TRIPPER"
A character who specialises in knocking enemies flat on their backs.

"TPK"
Total Party Kill. If you're subject to one of these, your DM may be John Carmack.

RIGHT: Give this Zombieman an axe and you've got id Software's tabletop campaign.

93
AMMO
45%
HEALTH
2 3 4
5 6 7
ARMS
82%
ARMOR
BULL 214 / 400
SHEL 93 / 100
RCKT 64 / 100
CELL 191 / 600

ABOVE: Bioware games are defined more than anything by their companion characters – an idea directly inspired by D&D parties.



After a few adventures in *Quake*'s company, the id Software team thought he was cool enough to be the protagonist of a videogame.

"We started working on it in January 1991," Romero says, "but the tech wasn't good enough and we cancelled it." After *Doom*, Romero returned to the idea – dreaming up an action game that would have armed players with a huge hammer that cracked the earth, and seen them accompanied by a sentient artefact called the Hellgate Cube. You can see remnants of that design in the finished FPS that shares *Quake*'s name – especially the medieval aesthetic and D&D-esque locations, like the Ogre Citadel and Wizard's Manse. Its oppressive, dark fantasy atmosphere is embedded deep in the memories of a generation of PC gamers, and is an important influence on modern indie shooters.

Even after leaving id Software, those D&D sessions lived large in Romero's memory. He named his breakaway project, *Daikatana*, after the very +5 sword that got his party into so much trouble. Perhaps that was tempting fate: *Daikatana* would prove to be a notoriously troubled project.

Today, you can find D&D in the bones of Romero Games' strategy game, *Empire of Sin*. "D&D will forever be a part of any video game that requires calculations to resolve conflict, to get loot drops, to define character traits," Romero says. "D&D is all about progression and making sure the calculations work as characters progress. Those core elements ensure that players remain interested because they are evolving with the game."

NEW EXPERIENCE

It's these latter concepts – of XP and levelling up – that might be D&D's most pervasive contribution to PC gaming. They provide essential punctuation to *Diablo* and *Destiny*, keep *COD* players killing, and grant *The Witcher III* its slowburn structure. Strip away those

TOP: John Romero did make a game with a hammer in it, but sadly, it was *Daikatana*.

LEFT: A fantasy influence on *Quake*? Surely not.

GRATEFUL TO GYGAX

The PC games that pay their respects

TINY TINA'S ASSAULT ON DRAGON KEEP

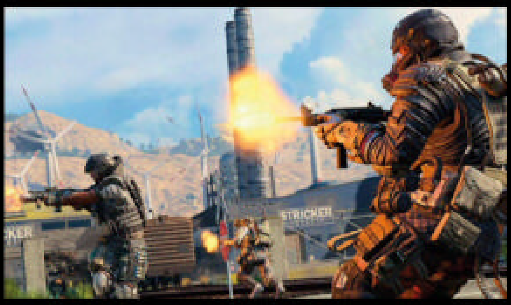
In this *Borderlands 2* DLC, Tina serves as 'Bunker Master' in 'Bunkers & Badasses'. The idea has since spun off into a whole new game called *Wonderlands*.

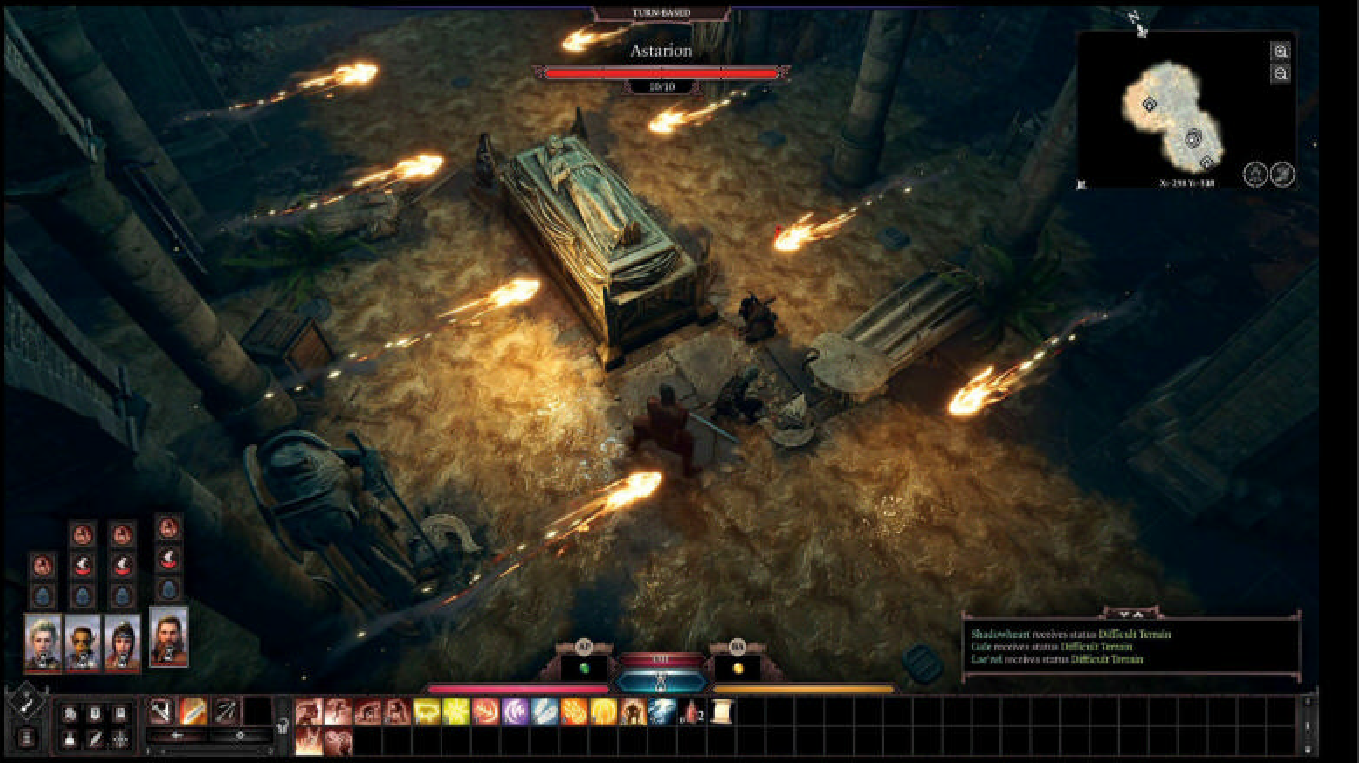
(ASMR) VIN DIESEL DMING A GAME OF D&D JUST FOR YOU

A very real game, playable on itch.io, which simulates a tabletop sesh with Hollywood's baritone beefcake. Soothing.

LIFE IS STRANGE: BEFORE THE STORM

A whole scene of Deck Nine's teen drama prequel is dedicated to roleplaying as an elf barbarian before class.





Shadowheart receives status Difficult Terrain
Gale receives status Difficult Terrain
Lae'zel receives status Difficult Terrain

fundamental ideas, and it's hard to imagine what PC gaming would even look like.

"It's funny," Spector says. "I'm actually a proponent of not focusing on XP and levelling, but it seems like most of my games include them no matter how I feel about it. I'll never quite understand that. I guess it's impossible, at least for me, to leave D&D behind completely." Spector recognises, grudgingly, why the stats and skills he speaks so disdainfully of have spread so far – even if he doesn't recognise them as the spirit of D&D. "Players 'get' that approach to roleplaying," he says. "It makes it easier to inhabit an avatar you created systemically, rather than one you create on the fly through your in-game behaviour. Familiarity breeds comfort and comfort leads to a kind of enjoyment."

The immersive sims that capture the sense of freedom Spector first felt at Bruce Sterling's table are, he admits, intimidating. "They force you to think and, in a weird way, take responsibility for your actions," he says. "Because they're your actions, not your character's. You have to stop, assess, plan and only then act. If we're being honest, all that stuff is work – fun work, but work. Tabletop RPG tropes are simple, well understood and put the focus on the character and the designer's story. That's comfortable for players." It's not the end of the story, however. In 2021, PC developers are working to tie roleplaying and roll-playing together. Just look at *Baldur's Gate III*. Larian's upcoming RPG is an officially licensed D&D product, which mimics the ruleset of the boxed game and copies its creatures straight from the Monster Manual. Yet more than that, it's an immersive sim by Spector's definition: a world full of obstacles you can overcome through simulated stealth or intense combat, by manipulating objects in the environment, or by talking your way out of trouble. A sturdy platform of story scaffolding on which to drape your adventures.

D&D has delved into and conquered every last nook of PC gaming. And now, finally, the party seems to be coming back together. ■

D&D IS ALL ABOUT PROGRESSION AND MAKING SURE THE CALCULATIONS WORK

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00%-09% Broken or offensively bad; absolutely no value.
Example *Leisure Suit Larry: Magna Cum Laude*

10%-19% We might be able to find one nice thing to say about it, but still not worth anyone's time or money.
Example *Gettysburg: Armored Warfare*

20%-29% Completely falls short of its goals. Very few redeeming qualities.
Examples *Family Guy: Back to the Multiverse*

30%-39% An entirely clumsy or derivative effort. There's little reason to play this game over a similar, better one.
Examples *Trials of the Blood Dragon*

40%-49% Flawed and disappointing.
Examples *Aliens: Colonial Marines*

50%-59% Mediocre. Other games probably do it better, or its unique qualities aren't executed well.
Examples *Primordia, Homefront: The Revolution*

60%-69% There's something to like here, but it can only be recommended with major caveats.
Examples *No Man's Sky, Ghost Recon: Wildlands*

70%-79% A good game that's worth playing. We like it.
Examples *Prey, NieR: Automata*

80%-89% A great game with exceptional moments or features, and touches of brilliance. We love it.
Examples *Overwatch, Night in the Woods*

90%-94% A compelling recommendation for most PC gamers. Important to PC gaming, and likely ahead of its time.
Examples *Bayonetta, Dishonored 2*

95%-96% Far and away one of the best games we've ever played. We recommend it to the entire world.
Examples *Half-Life 2, Kerbal Space Program*

97%-100% Advances the human species. Boosts the immune systems of nearby children and small animals.w

PC GAMER EDITOR'S CHOICE

The Editor's Choice award is granted in addition to the score, at the discretion of the PC Gamer staff. It represents exceptional quality or innovation.

Find out more
www.bit.ly/pcgreviews

Getting loopy

Time loops seem to particularly resonate with people at the moment – I feel like I'm seeing more than ever across film, TV, and games. We've got two in reviews this month alone (*12 Minutes* and *The Forgotten City*). As a magazine editor who's been in lockdown for what feels like 500 years I'm certainly familiar with feeling like you're doing the same thing over and over. And, actually, the more I think about it, the more time loops feel integral to modern gaming. What is *Hitman* if not a Groundhog Day videogame? Aren't you just living the same (very short) life over and over in *Spelunky*? Isn't *Crusader Kings* basically just a loop of a slice of medieval history that you keep experiencing over and over because bloody Gengis Khan keeps wrecking your kingdom? Hold on, I'm getting the worst deja vu – have I said all this before?

Robin

ROBIN VALENTINE
PRINT EDITOR
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LET US KNOW WHAT YOU THINK
Email us via letters@pcgamer.com with your reactions, or simply tweet us your thoughts @PCGamer

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This month's culturally relevant reviewers...

FRASER BROWN
Specialist in
Games that take all night to play
Currently playing
Humankind
This month
Decided to conquer the world instead of getting any sleep.

WES FENLON
Specialist in
Minute details
Currently playing
12 Minutes
This month
Recounted *12 Minutes*' awful twist ending to anyone who would listen.

ROBERT ZAK
Specialist in
Alienation
Currently playing
Aliens: Fireteam Elite
This month
Killed way more xenomorphs than Ellen Ripley ever did. Take that, Sigourney.

RACHEL WATTS
Specialist in
Road works
Currently playing
Road 96
This month
Got an awful lot of teenagers sent to prison in a fascist state. They'll be fine.

MATTHEW CASTLE
Specialist in
Dental danger
Currently playing
Psychonauts 2
This month
Developed a phobia of teeth. Don't smile at him, please.

TOM SYKES
Specialist in
Avian jobs
Currently playing
Postbird in Provence
This month
Delivered parcels in a town where no one puts their name on the box. Maddening.

MATT ELLIOTT
Specialist in
Bald murder
Currently playing
Hitman
This month
Arranged for someone to have an 'accident', then had several himself.

IT'S ONLY HUMAN

HUMANKIND is a solid 4X in need of a personality

By Fraser Brown

There's something weirdly mythical about the historical 4X and the dominance of one series, *Civilization*, for 30 years. Amplitude Studios has been working on a challenger for a decade, preparing to rewrite the myth. *Humankind* is the result: a behemoth that's kept me on its hooks until sunrise a few times. But in trying to make its own *Civ*, Amplitude may have sacrificed too much of what made its games such compelling weirdos.

This is not to say that *Humankind* doesn't have any bold ideas. It's clear that isn't the case as soon as you hop into a campaign. Normally you'd need to pick a civ, faction, or race of nerdy dragons first, and then plonk down a city, but not here. Before picking a site for your first settlement, or even picking a culture, you must first explore the world as a nomadic, neolithic tribe. During this phase you saunter around gathering food and other resources, with wee breaks where you get to fight animals. Picking berries and beating up mammoths – a perfect neolithic family day out.

I'm sure this all sounds quite relaxing – that's a trap. It's really a sprint, a particularly brutal one on the highest difficulty, where you're competing to get first dibs on the list of playable cultures and stake your claim on the most bountiful regions. Found a place with bronze and horses? Get an outpost on that as quickly as you can, and then get back to brawling with the wildlife.

Your little band of explorers will grow, allowing you to break up the squad and send smaller groups far and wide. Of course, that puts them in danger, as other tribes might try to pick them off. Territory you've claimed in preparation for your transformation into a settled civilisation can also be ransacked and taken from you, so things can get a bit heated. It's good to make enemies early on and know where you stand.

> **It's good to make enemies early on and know where you stand**

It's simply the best 4X starting experience. By the time my neolithic adventures earn me enough stars to move to the next era, I've usually pushed back the fog of war considerably, found several potential sites for my first city, and know where I can find dyes and other early-game resources. It's especially helpful when it's your first game, easing you into something that quickly balloons in complexity.

NEED TO KNOW

WHAT IS IT?
A Civ-like historical 4X from the creators of the *Endless* games.

EXPECT TO PAY
£35

DEVELOPER
Amplitude Studios

PUBLISHER
Sega

REVIEWED ON
GTX 1080 Ti, Intel i7-8086K, 16GB RAM

MULTIPLAYER
Yes

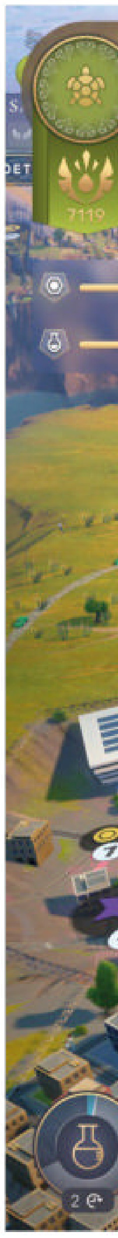
LINK
humankind.game

A bit like *Civilization 6: Rise and Fall's* Great Ages, *Humankind* only lets you move into a new era when you've hit enough milestones. Get seven stars and you'll be able to leap into the next era. Having these objectives is a great motivator, and it's a good way to measure your progress against the competition. However, the milestones are hardly inspiring. They're all arbitrary targets like 'defeat 20 military units', and the only thing that changes is the number. You'll be at turn 200 doing the same thing you were doing at turn 20.

While those stars are crucial, what you're really trying to get is the accompanying Fame payout – if you have the most when the game ends, victory is yours. So you might linger in an era you're free to leave, just so you can mop up a few more stars that you're close to getting. Watch out, though, because that Fame isn't going to save you if a more advanced empire decides to pick a fight. More Fame can be earned by erecting wonders, too, or by completing competitive deeds, like discovering natural wonders or finding a new continent.

CULTURE WAR

When it's time to hit the ancient era, it's only then that you get to pick your first culture. Each has a penchant for science, or expansion, or warfare, etc, giving you an active and passive ability shared by all the cultures with that affinity. You also get a unique building, unit, and bonus, like Egypt's ability to generate more industrial power. The bonuses are usually big, game-changing numbers, and there's a significant difference if you pick the industrious Egyptians over the expansionist Assyrians. These differences will inspire your strategy,



PERFECT WORLD

How to use the settings to make a more interesting campaign

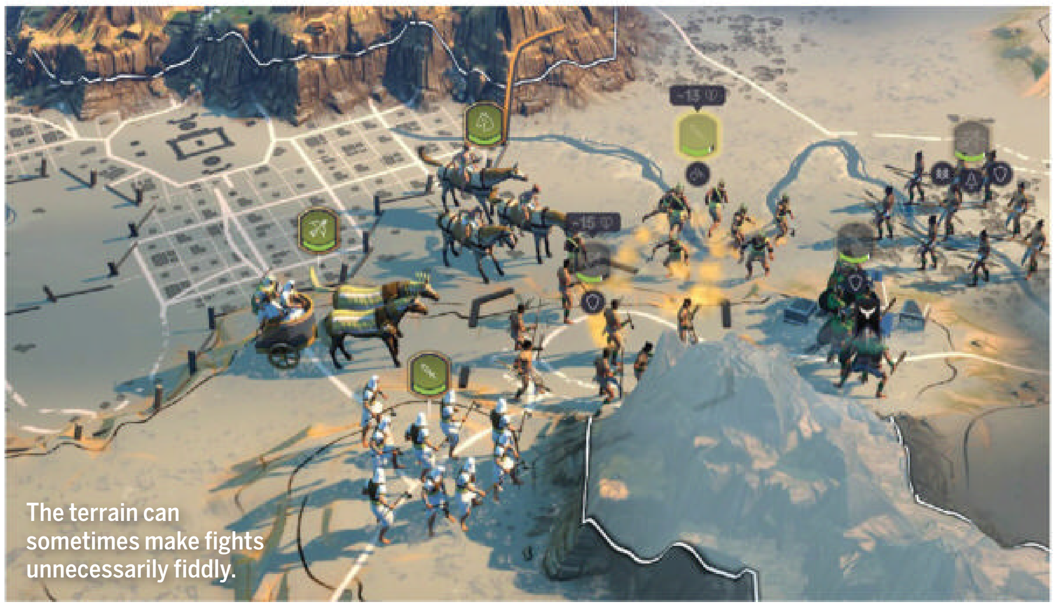
DIFFICULTY
Empire is the first difficulty level to provide a proper challenge, with aggressive leaders and cultures.

MAP SIZE
Each map size is recommended for a specific number of players, and is relatively balanced for that number, so choose wisely.

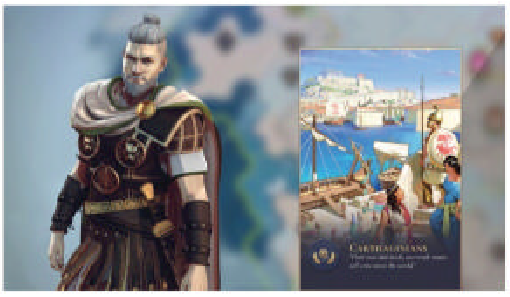
New Game
Grumbler's Game
Normal
Start
Main Menu

SPEED
Normal is fine, but I recommend picking slow, which lets you spend more time with each culture.

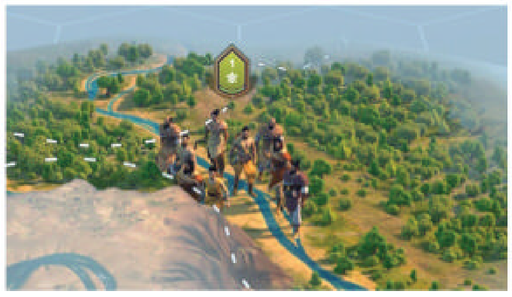
AI
I like playing against six opponents. The AI hasn't made much of a difference in my games, so I just go with who has the most punchable face, as usual.



The terrain can sometimes make fights unnecessarily fiddly.



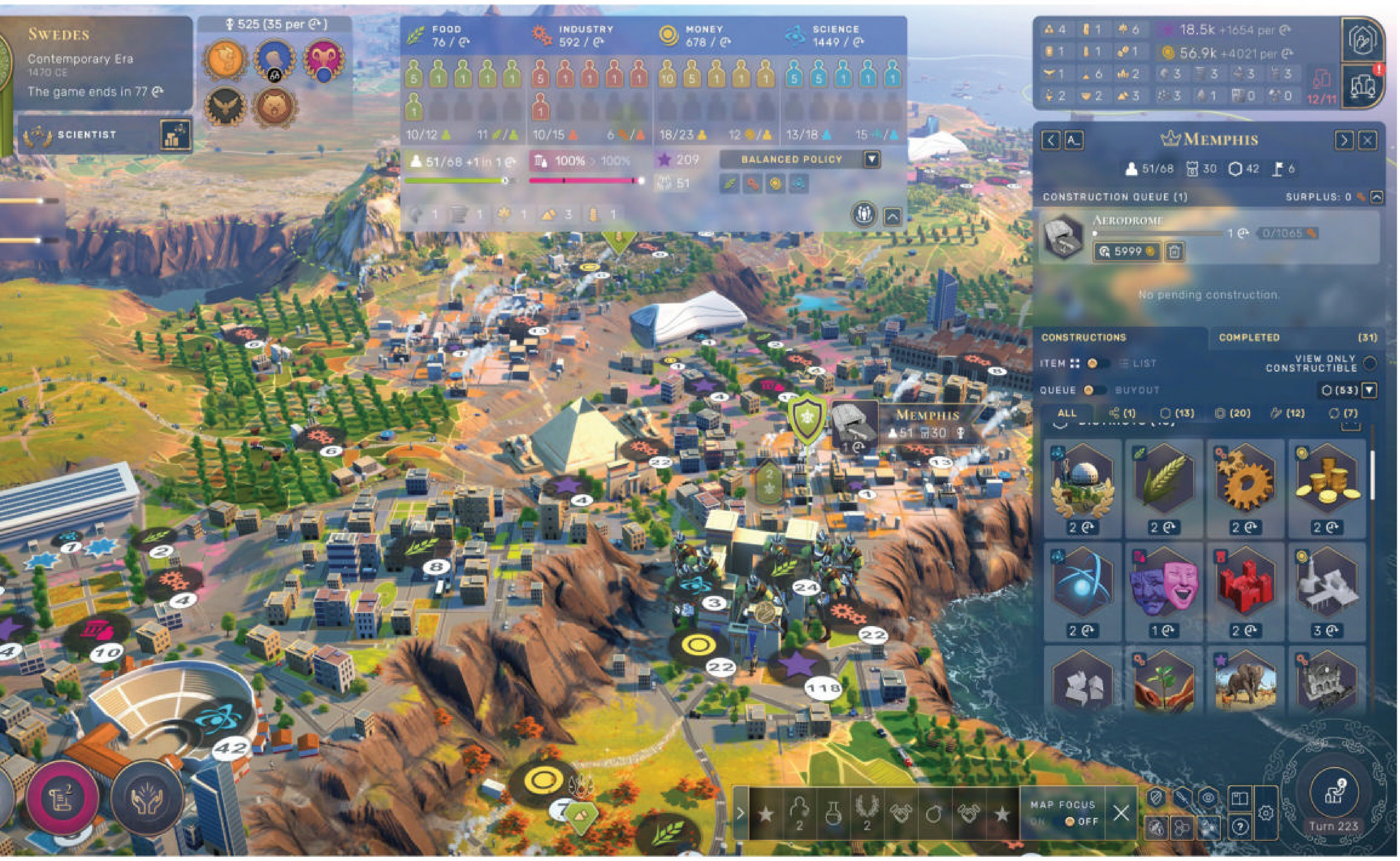
CARTHAGINIANS



ABOVE: Cities are fetching dioramas, and can grow to a massive size.

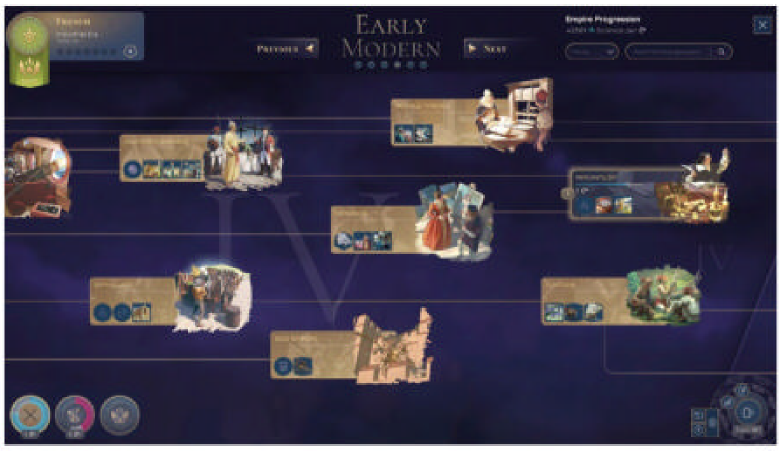
LEFT: Each new era also gives your leader a new costume to parade around in.

BELOW: I hope you really, really like numbers.



SWEDES
Contemporary Era
1470 CE
The game ends in 77
SCIENTIST
525 (35 per)
FOOD
76 /
INDUSTRY
592 /
MONEY
678 /
SCIENCE
1449 /
10/12
10/15
18/23
13/18
51/68 +1 in 1
100%
209
BALANCED POLICY
18.5k +1654 per
56.9k +4021 per
12/11
MEMPHIS
51/68
30
42
6
CONSTRUCTION QUEUE (1)
SURPLUS: 0
AERODROME
0/1065
5999
No pending construction.
CONSTRUCTIONS
COMPLETED (31)
ITEM
LIST
VIEW ONLY CONSTRUCTIBLE
QUEUE
BUYOUT
ALL
MAP FOCUS
OFF
Turn 223

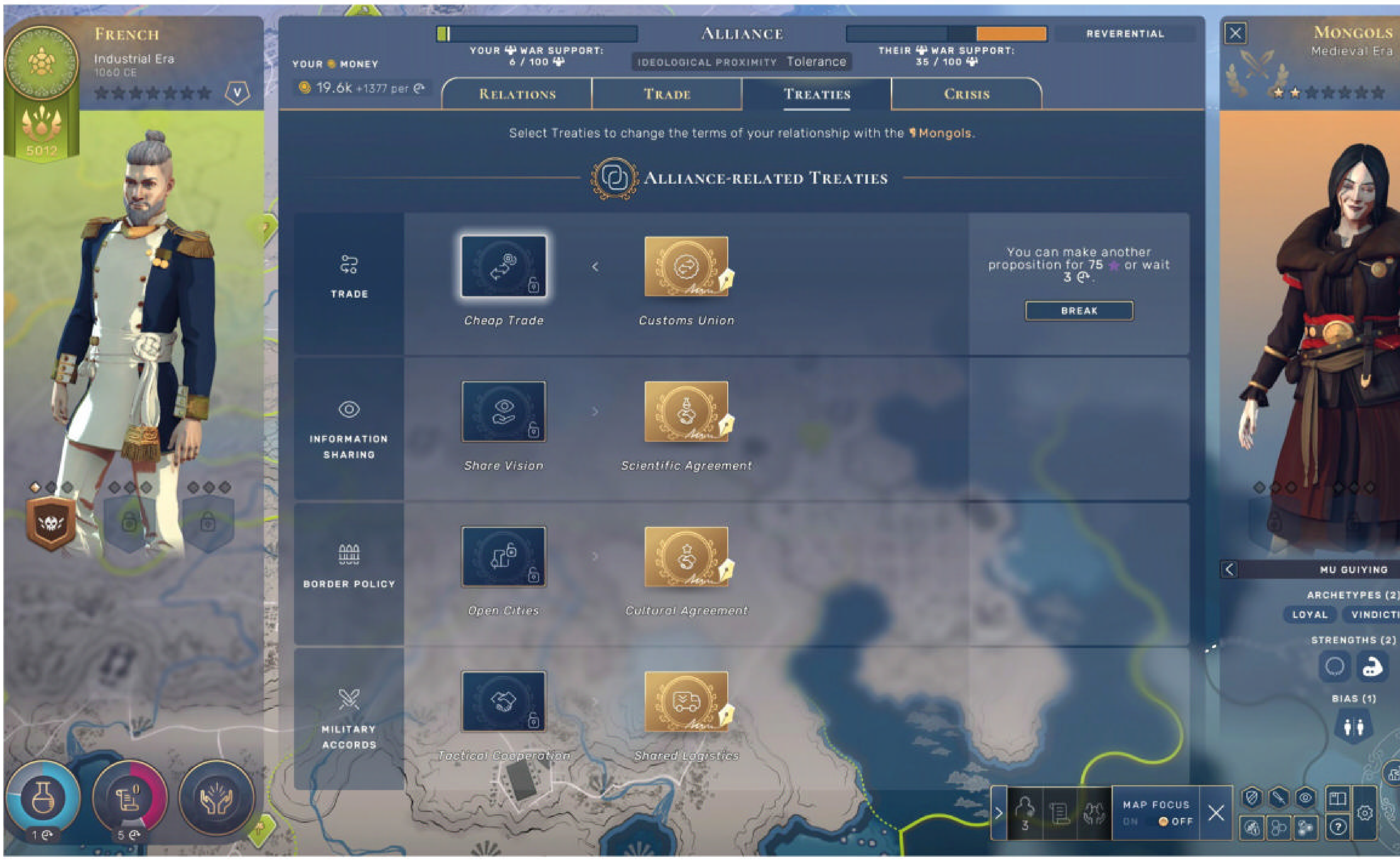
I hope my pops appreciate that I built this city next to a lovely waterfall.



FAR RIGHT: I won the wonder measuring contest.

RIGHT: If you're tired of the state of the world, there's always the nuclear option.

BELOW: I've run out of treaties to make, so I guess I've won the friendship game.



French
Industrial Era
1060 CE
5012

Alliance
Your money 19.6k +1377 per
Your war support: 6 / 100
Ideological proximity Tolerance
Their war support: 35 / 100
Reverential

Mongols
Medieval Era

Relations | Trade | Treaties | Crisis

Select Treaties to change the terms of your relationship with the Mongols.

Alliance-related Treaties

Trade: Cheap Trade, Customs Union

You can make another proposition for 75 or wait 3.

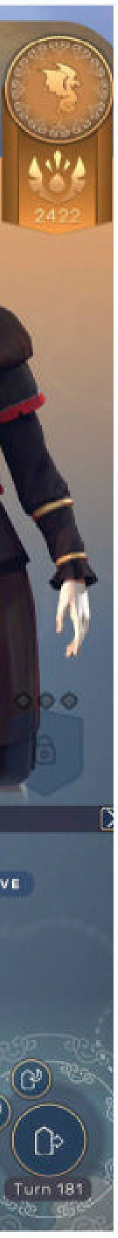
Break

Information Sharing: Share Vision, Scientific Agreement

Border Policy: Open Cities, Cultural Agreement

Military Accords: Tactical Cooperation, Shared Logistics

Mu Guiying
Archetypes (2)
Loyal
Vindict
Strengths (2)
Bias (1)
Map focus On Off



but mechanically they are a lot less distinct than any of the factions Amplitude has created previously. No numerical bonuses can compare to the unique traits of *Endless Legend*'s Necrophage, a ravenous insectoid swarm that can't make friends and just wants to eat everything.

Humankind's big trick is that you're not stuck with your chosen culture. At the start of every new era – there are six in total – you can optionally adopt a new era-appropriate culture while keeping the bonuses from your previous ones. Individually, the faction design seems conservative, but when you start mixing them up things start to get a lot more exciting. There are a million possible combinations, encouraging a lot of number crunching and experimentation. You've also got lots of religious tenets, available to pick whenever your religion ranks up, and culture-wide civics decisions, both of which pile on even more bonuses. Overpowered builds are inevitable with this many combos, and I much prefer it to perfect balance.

> ***Humankind*'s big trick is that you're not stuck with your chosen culture**

Watching my favourite numbers skyrocket brought me a lot of joy, but I can't say I got attached to any of my hybrid cultures. There's nothing to really get attached to – only the odd unique building or unit. And the individual cultures never stick around for very long, leaving behind only a bonus and the occasional relic as their legacy. The AI leaders have personality traits, but I would never have been able to tell if the game didn't explicitly show me in the diplomacy screen. And it's much harder to nurture grudges when the civilisations keep changing.

Amplitude is so experienced in the art of weaving narrative twists into strategy games that its absence is *Humankind*'s greatest surprise. I wouldn't expect something like *Endless Legend*'s more scripted stories in a historical 4X, but *Humankind* doesn't really generate much emergent stuff either.

It's telling that instead of your population's happiness being reflected, cities instead have a cold, mechanical stability meter. This I'm OK with. I'm done with trying to keep people happy. All I want to do is build absolutely humongous cities, and *Humankind* is more than happy to be of service. These things consume everything and spread all over continents like a living factory, gobbling up all the resources and turning them into cash and guns. Feeding time is all the time.

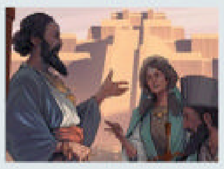
By linking a region you've claimed to an existing city, that city can then start expanding into the new region and harvesting its resources. Cities can even swallow up other cities, creating a huge mega-city. These big moves are pricey and destabilising, but with the economy's tendency to snowball, you can rack up a huge surplus easily, and stability issues can be fixed by plonking down the appropriate district. There just isn't much halting your expansion. When obstacles do appear, the solution is rarely to rein it in; you can keep going.

The default difficulty will lead to no wars and let you simply walk your way to victory, so I recommend cranking that up a few notches. When I turned the difficulty up to Empire for the first time, the Neolithic tribes were going at it even before they'd invented the concept of war. The need for troops massively slowed down the development of my cities and my economy, and while cheesy builds can still throw it all into disarray, the AI can give you a proper fight when you let it off the leash.

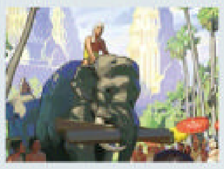
CULTURE CLUB

Some cultures to consider for each era

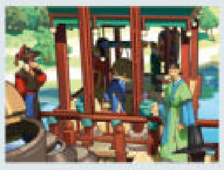
HARAPPANS
Picking Harappans for your first culture will put you in a good position for early expansion.



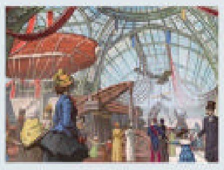
PERSIANS
I recommend picking Persia for their increased city cap, letting you conquer or erect new cities.



KHMER
The industrious Khmer let you field Dhanvi-gaja, otherwise known as ballista elephants.



JOSEON
Picking Joseon as your next culture nets you +3 to every tile that generates science.



FRENCH
The French get a huge 10% bonus to science in every city. With all this tech, you'll be well set.

SOVIETS
Conquer the world with the Soviets. The combat strength and reduced cost for units are great.

There's just one problem: I don't really like fighting. The threat of combat is a necessary evil to shake up a game that can be a little dull without it. Fights play out in a tactical map within the campaign map, with each unit in your squad getting a chance to bloody the enemy's nose. It's a lot like *Endless Legend*'s combat system, but not as good. Units can move, use one basic attack and die – that's their three skills. Terrain is the main enemy, and with more elaborate topography than *Endless Legend*, there's less room to worth with. It's more fiddly than tactical, and I'm still confused about how I'm meant to lay siege to small islands when, as the game kept reminding me "you can't besiege a city with an army at sea". Things pick up by the endgame, as units with more utility start to appear, but I'm still tempted to auto-resolve every fight. At least that's an option.

SORTA KINDA

Even with more enthusiastic opponents, the momentum falters in the endgame as *Humankind* runs out of new tricks. It gets familiar late additions like the space race, nukes, and pollution, but all of them are disappointingly perfunctory. I sped to the end of the very traditional tech tree in my first game, and acquiring all of humanity's knowledge only left me hollow. Perhaps there's a valuable lesson in there, but I'd rather have more neat things to do with fancy technology. There are only so many times the numbers can grow before you crave something a bit more substantial. Mostly, though, I just with it was a bit weirder – 20% more weird. I miss the surprises that Amplitude normally throws my way.

The End Turn button still beckons, however, and Memphis needs more oil for its battleships. I also need to try out a lethal militant build I've been considering, in the hopes of quickly throwing the world into an apocalyptic war. *Humankind* has still spawned some great ideas that I'm not done with, and can't wait to see imitated and iterated. But now that Amplitude has made its *Civilization*, I really hope it goes back to making *Alpha Centauris*. ■

PC GAMER VERDICT

***Humankind* is a smart historical 4X that doesn't quite match the inventiveness of the studio's best work.**

71

TIME WASTED

12 MINUTES squanders its time loop on dull repetition and the year's worst twist ending.

By Wes Fenlon

There's a puzzle in adventure game *Gabriel Knight 3* infamous for being so illogical that 'the cat hair moustache' has become the bad puzzle that all others are compared against – the pinnacle of design that makes you ask yourself, "How the hell was I ever supposed to think of that?" I had that exact feeling while playing *12 Minutes*, which uses a time loop to let you live out its frustrating and obtuse puzzles again and again and again.

You start *12 Minutes* as a nameless man coming home to your small apartment, where your wife greets you warmly with a candlelit dessert and a surprise: she's pregnant. A few minutes later, a cop kicks down the door, accuses your wife of being a murderer, and strangles you to death. Enter the time loop: still gasping for air, you reappear at the apartment door. How do you stop the cop from killing you, armed with the knowledge of what happens next?

Early on I thought the answer would lie in picking apart every action the characters in *12 Minutes* take, but after a few basic discoveries *12 Minutes* becomes a game of rote incremental progress. The first time I figured out how to knock out the cop and start asking him questions it felt like a victory, but by the time I finished *12 Minutes* I'd gone through the same steps at least a dozen times, trying to find new story paths branching off from every decision. It was never rewarding.

12 Minutes is especially frustrating because it has nothing else going on outside its time loop premise. Even when adventure game puzzles annoy me, I know there are some jokes and new places to explore as a reward for getting past them.

> **Each loop was a missed opportunity to throw in some new dialogue**

Despite casting big name actors Willem Dafoe, Daisy Ridley, and James McAvoy, *12 Minutes* seems weirdly uninterested in fleshing out these characters beyond the bare minimum needed for its plot. We learn about these characters' deep, dark secrets, but we basically don't get to spend any time with them in the present – even though time is the one thing that *12 Minutes* has in abundance. It never offers the opportunity to ask questions like "what did you do today?" or "how's our marriage going?" or "honey, what's your name?" Each repeated loop was a missed opportunity to throw in some new dialogue or internal monologue from my character – the kinds of little details so effective in indie developer Supergiant's games like *Hades*.

NEED TO KNOW

WHAT IS IT?
A time loop puzzle game... with *feelings.*

EXPECT TO PAY
£19.50

DEVELOPER
Luis Antonio

PUBLISHER
Annapurna Interactive

REVIEWED ON
RTX 3070, Intel i7-7700K, 32GB RAM

MULTIPLAYER
Yes

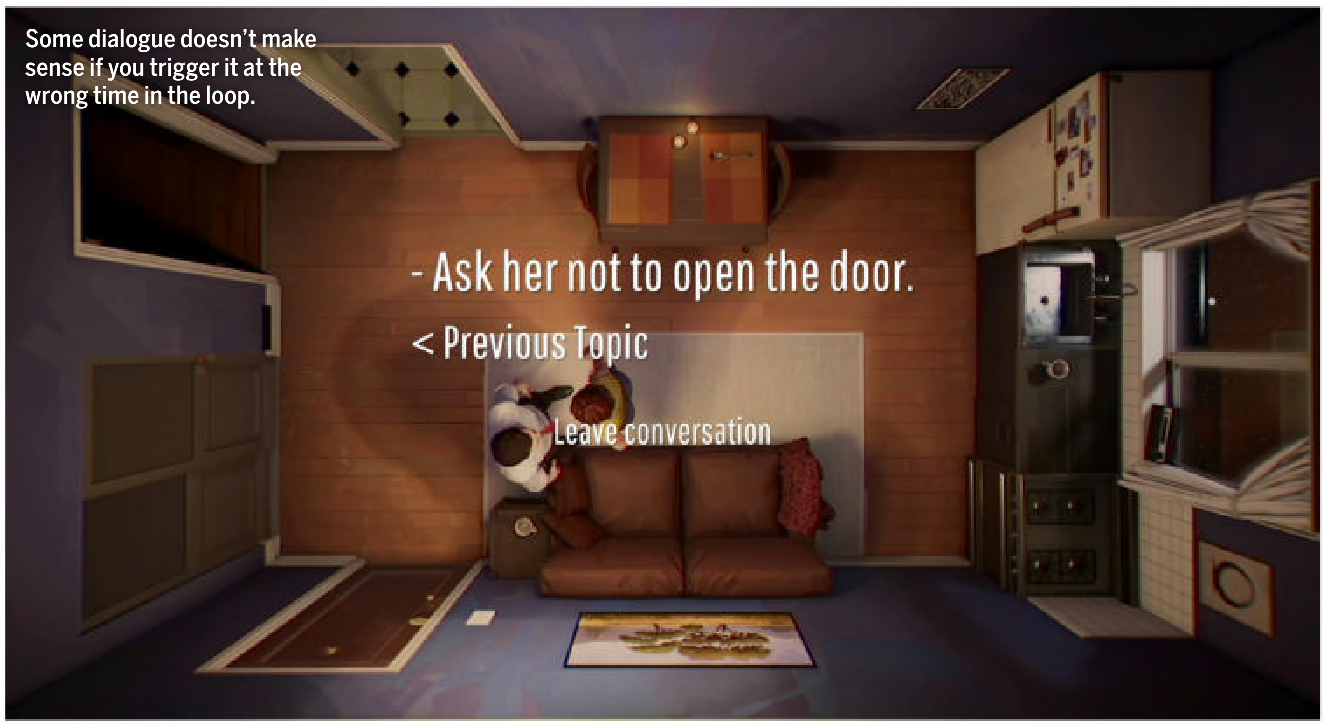
LINK
twelveminutesgame.com

LIVE, DIE, REPEAT

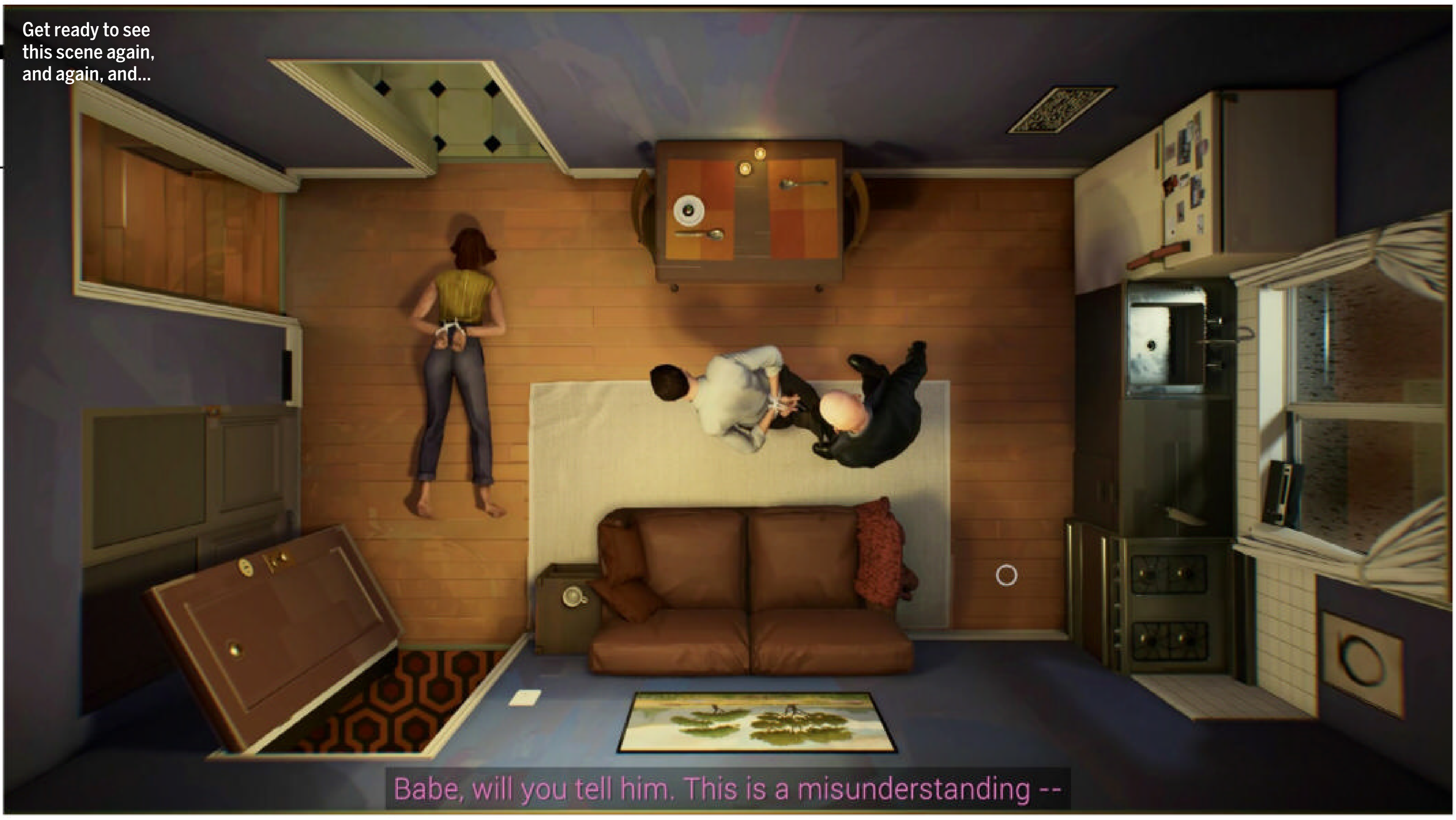
The more you pick at the options available in *12 Minutes* or diverge from the same linear action loop, the more it falls apart. There's very little reactivity in the dialogue, so you can try to convince your wife you're in a time loop, making yourself look like a full-blown lunatic, and then say never mind – let's have some dessert! Many other lines of dialogue also assumed I'd said something in that loop that I actually hadn't or read like bizarre non-sequiturs depending on when I said them.

LUIS ANTONIO
PRESENTS

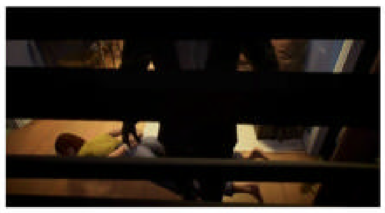
ABOVE: The presentation of the opening credits is legitimately the high point.



Some dialogue doesn't make sense if you trigger it at the wrong time in the loop.


Get ready to see this scene again, and again, and...

Babe, will you tell him. This is a misunderstanding --



ABOVE: Psych yourself up. This day's gonna get weird.

FAR RIGHT: The twist ending ultimately undermines the bits of humanity you uncover.

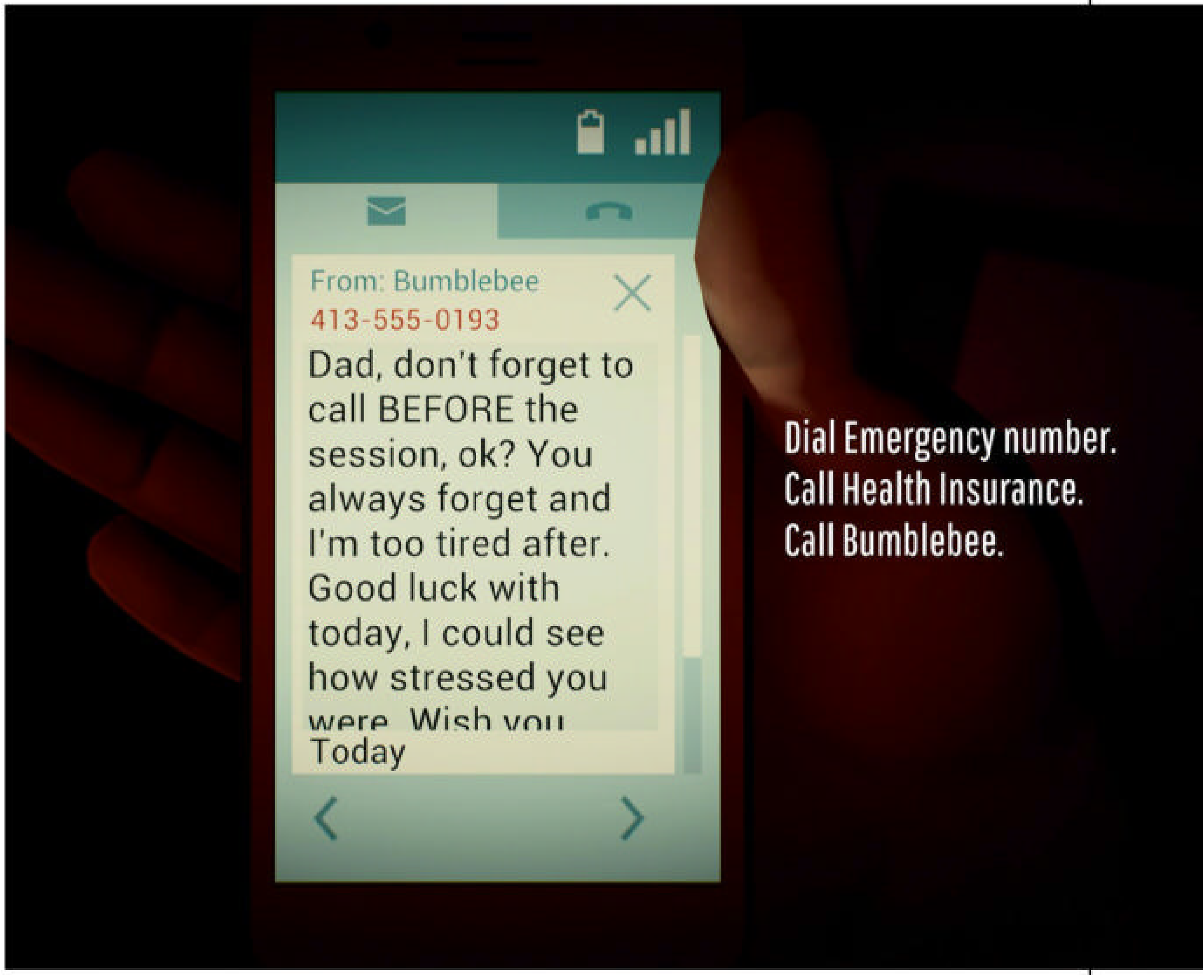
In a game that's mostly dialogue and characters having big emotional moments, abrupt tonal shifts and awkward animations break the mood. *12 Minutes* ends up constrained by its main idea: I reached almost every solution by doing slightly different permutations of the same few actions, but with little of the creative reasoning or observation that better mystery games like *Return of the Obra Dinn* thrive on. And then there is *12 Minutes*' twist ending, which is truly the most contrived, groan-worthy reveal I've run into in ages, making all the effort to reach the end feel like a true waste of time.

After I finished *12 Minutes* and it deleted my save – it seemed like a Steam glitch, but is apparently what happens when you get the true ending – I opened up the game folder on my SSD and found a log file that contained a list of every action I'd taken and the bit of game code that corresponded to it. By reading through that code I found out the faceless husband and wife do have names, they just never appear in the game. At the end there, *12 Minutes* did at least give me one secret I really enjoyed discovering. ■

PC GAMER VERDICT

Luis Antonio's *12 Minutes* has a pretty clever time loop setup that unfortunately gets worse with every loop.

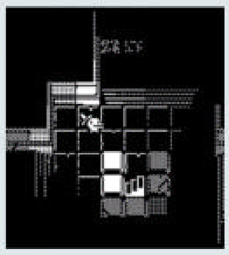
53


From: Bumblebee
413-555-0193
Dad, don't forget to call BEFORE the session, ok? You always forget and I'm too tired after. Good luck with today, I could see how stressed you were. Wish you
Today

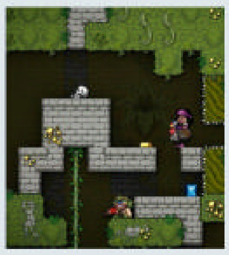
Dial Emergency number.
Call Health Insurance.
Call Bumblebee.

TAKE A BREAK

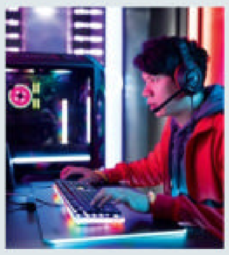
Four ways I'd rather spent 12 minutes of my time



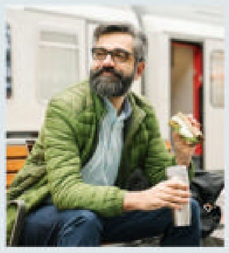
MINIT
Playing 12 in-game days in far superior indie *Minit*. While not technically a time loop, it scratches the same itch.



SPELUNKY 2
Making it to the jungle and immediately skewering myself on a spike trap in *Spelunky 2*.



VIDEO CARD
Updating my video card drivers. Boring, but with the promise of more frames per second in a game I'll play sometime.



SANDWICH
Sitting on a bench eating a rubbish sandwich. (Even a rubbish sandwich is still better than most other things).

AXIOM DISRUPTOR

AXIOM VERGE 2 is less Metroid, more 'vania

By Tom Sykes

I can remember the last time I felt excited about a Metroidvania. It was *Axiom Verge*, a game inspired more by the original *Metroid* than the other half of the equation, *Symphony of the Night*. Its standout feature was a device that let you 'hack' the world, by turning foes into friends or clearing glitched-out obstacles. In truth, the Axiom Disruptor was just a power-up like any other, but it gave the *illusion* of letting you mess rebelliously with the game code.

I mention the Disruptor – such an iconic element of the original game – because it's absent from this daring sequel, replaced by a similar hacking tool that's perhaps more versatile, but less exciting to use. It's emblematic of a game that has changed almost every aspect of its predecessor, while still retaining its soul.

In *Axiom Verge 2*, you play as billionaire CEO Indra Chaudhari, who has arrived on an alien world to search for her daughter. It's a philosophical story that touches on artificial intelligence and a theory of multiple worlds, but so lightly it can be difficult to follow.

Where the original was largely subterranean, its sequel features a more conventional overworld. *Metroid*'s subterranean dread has been swapped for a sumptuous environment that's still rewarding to hack and slash your way around.

Notice I didn't say 'shoot'. The many guns of the original have been excised completely, leaving only melee weapons and a *Zelda*-style boomerang. It's a huge change, but the combat's good enough, if slightly less satisfying than the bullet cacophony of the previous game.

> Unexplored map sections are devious navigation puzzles

There may be just as much fighting here – but boss fights have been ditched as well. Oh, there's a perfunctory final battle, and some optional scraps against unique enemies. But there are no locked-off boss arenas – two encounters with the villain excluded – and no giant health bars to whittle down before you can progress. *Axiom Verge 2* doesn't want to interrupt the flow of exploration. That exploration aspect has seen some changes. The newly fleshed-out environment connects in a more organic way than its boxy predecessor, while there's now a *second* world running parallel, like the Dark World in *A Link to the Past*.

NEED TO KNOW

WHAT IS IT?
An open-ended platformer set in an intricate alien environment

EXPECT TO PAY
£16.20

DEVELOPER
Thomas Happ Games LLC

PUBLISHER
In-house

REVIEWED ON
Intel Core i7-10750H, 16GB RAM, GeForce RTX 2060

MULTIPLAYER
None

LINK
axiomverge2.com

LIFE'S A BREACH

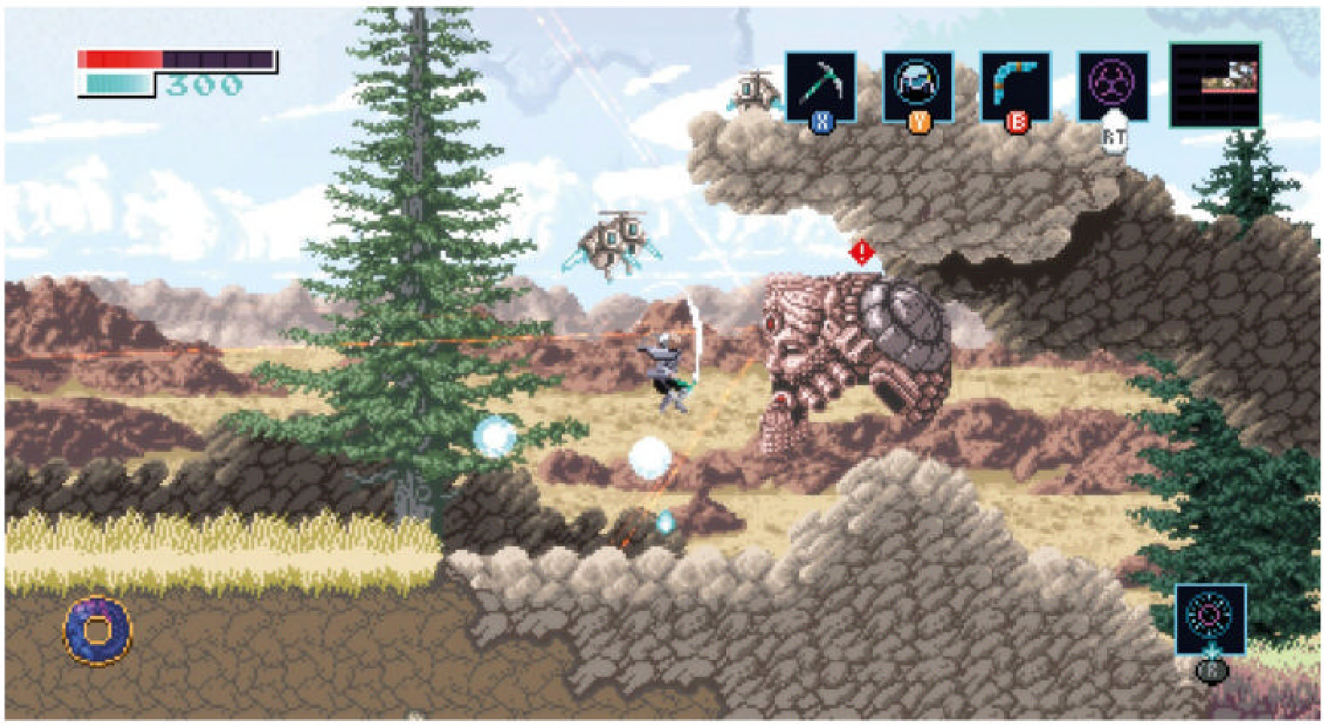
You've seen the feature before in games, probably in other Metroidvanias, where the two dimensions are just reskinned versions of each other. Not so here. The Breach is a separate map, with a mostly different layout and a *wildly* different visual style: super low-res and with a colour palette that hasn't been seen since '70s sci-fi.

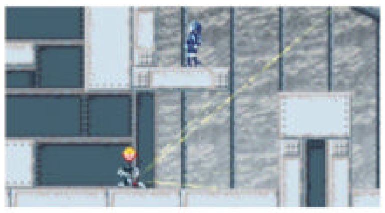
In the more cramped setting of the Breach, you control your drone sidekick, bashing enemies and dodging traps while listening to synth cover versions of an already great soundtrack. It's an intoxicating place that blows open the borders of the map, particularly when you're able to travel between worlds.

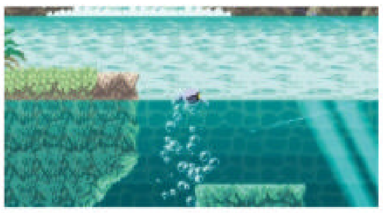
Axiom Verge 2 – more so than its predecessor – is a game in which

ABOVE: This amiable robot deity is actually trying to kill you.

RIGHT: *Axiom Verge* had no melee weapons.







unexplored map sections are actually devious navigation puzzles. Which ability do I need here, and which part of the map should I approach this obstacle from? Discovering the solution is usually more satisfying than finding whatever trinket lies in wait as a reward, because you've been entrusted to discover it for yourself.

The game could be more accommodating, particularly in regards to its grappling hook, which is unintuitive to use and can sometimes demand almost pixel-perfect precision. I should probably also mention that I got totally stuck at one point – as I did in the first game – but thankfully for a much shorter duration here.

Almost from the start, you can sprawl in multiple directions and butt your head against multiple brick walls. However, the game is pretty good at offering guidance. There's now a compass to offer assistance, but it's also easier to orient yourself inside these more organic worlds.

Axiom Verge 2 builds on the work of its predecessor, but also *Symphony of the Night* and *A Link to the Past*, to create one beautifully intricate space to explore. ■

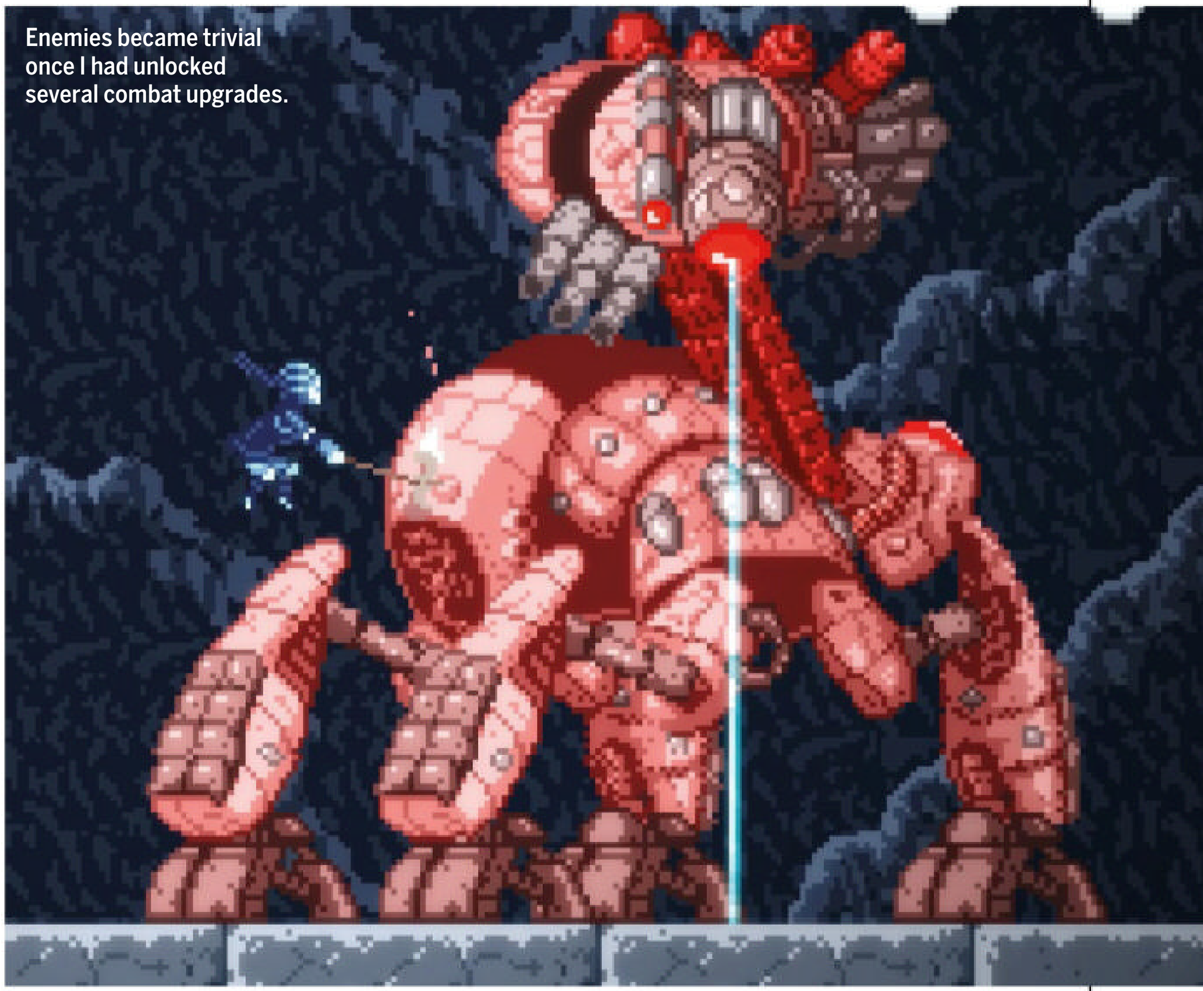
PC GAMER VERDICT

Thomas Happ Games' *Axiom Verge 2* is a bold and ambitious sequel set in a satisfying, densely connected world.

87

TOP: The Breach. It's like a mosaic covered in Mountain Dew.

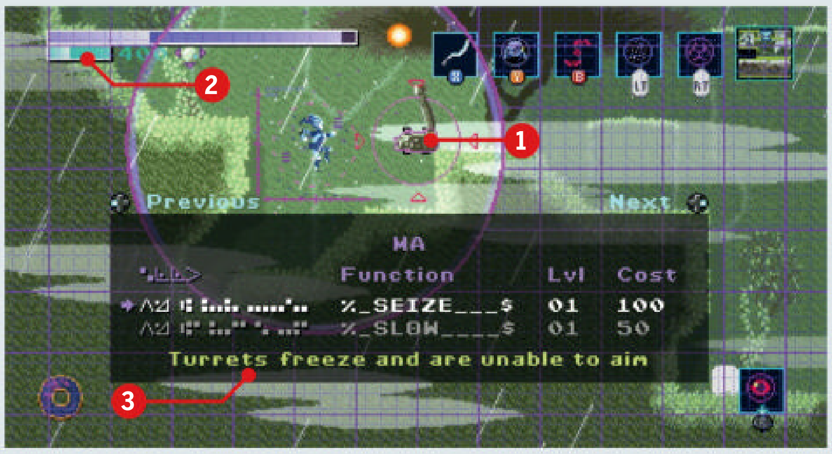
ABOVE: I prefer playing as the drone. It's much nippier.



Enemies became trivial once I had unlocked several combat upgrades.

DOT HACK

Here's how the game's new hacking tool works



HA

[illegible]	Function	Lvl	Cost
[illegible]	%_SEIZE___$	01	100
[illegible]	%_SLOW____$	01	50

Turrets freeze and are unable to aim

1 TARGET LOCKED

The new hacking device isn't a gun – it's a field that will latch onto any enemies or switches in range. You're given multiple options, for instance: to slow down enemies or disable weapons.

2 BAR NONE

It's probably not called MP, but some hacks cost more of the game's new MP bar than others. You can extend it by spending skill points, which are hidden around the world.

3 WHY BOTHER

Hacking is one option – but you could also whack the enemy a few times instead. It's a sophisticated system, used occasionally during puzzles, but combat feels too brief to ever require it.

ALIENTIDE

ALIENS: FIRETEAM ELITE isn't the perfect organism, but it's decent co-op fun.

By Robert Zak

A*liens: Fireteam Elite* is dumb explosive fun – a swarm-based action game that's derivative of both *Left 4 Dead* and *Gears of War*, but with a few nice touches of its own. It has that competent mid-budget feel that's becoming identifiable as publisher Focus Home's house style, with sparse story and cheesy dialogue and NPCs who talk without opening their mouths.

It's also very co-op dependent, and how good a time you have will be dictated by whether you play alongside real people or the voiceless bots that stand in for them.

Set across four chapters of three missions each, the *Fireteam* campaign is a slideshow of distinctly 'Alien' environments. There's the occasional pretty vista, but your traversal of these spaces is mostly flat and non-interactive. That's not too much of a problem because you'll probably be preoccupied with blasting away the hundreds of aliens streaming out of every environmental orifice.

These claustrophobic levels are functional, heightening the balls-to-the-wall intensity as the walls and ceiling turn black with xenos. Your fusillade of gunfire will cause aliens to stumble and roll, but even so they continue to charge you with hive-minded ferocity.

The corridor runs and endless alien harassment can get a little tiring, so it's a welcome change of pace when you reach the wave survival segments in each level. Here you have the time to gather yourselves, prepare your defences, then trigger the encounter when you're ready.

With a strong defence, you can (mostly) keep the aliens at a comfortable distance. When you inevitably get breached however, the mechanics can get a bit scrappy – you have no melee attack, you can arbitrarily leap over some waist-high walls but not others, and the stop-and-pop cover system is only really useful on the rare occasion you fight armed enemies.

> **Who knew that there was so much diversity among xeno species?**

XENOBIOLOGY

Speaking of enemies, who knew that there was so much diversity among xeno species? Beyond the classic dark aliens, you have your sneaky Spitters, iridescent-brained Bursters, and red Prowlers who wait around corners to give you a cheap jumpscare and QTE event if they grab you. Gun-wielding synths appear at one point to give you an excuse to use those cover mechanics, and even the wonderful Working Joes from *Alien: Isolation* make an appearance. It's all very goofy, and I'm not sure many of these creatures will make it into canon, but it does its job of mixing up the threat and keeping you on your toes.

Each of the several classes to choose from has a couple of unique abilities that range from micro-rockets to healing turrets and group buffs. On higher difficulties, I particularly appreciated the more nuanced abilities of the Tactician, who has coil charges that slow enemies down, as well as a deployable turret that both shoots enemies and improves your defence when you stand near it.

Fireteam is flexible both in progression and in the missions themselves. I like the Challenge Cards, which let you earn bonus XP and money by doing things like disabling consumables or halving your ammo for the whole mission. Each player can pick one Challenge Card per mission, so you have a lot of wiggle room to play around with.

For a universe in which androids make up some of the most compelling characters, it's a shame that the bots accompanying you when playing alone have nothing to say. They perform poorly too, and I found myself having to drag them through the campaign.

The online matchmaking system needs work, as right now it's too restrictive, only matching you with players who are at that moment entering the exact same mission on the same difficulty as you.

At least *Fireteam*'s most glaring problems should be fixable with some patches (and a couple of friends). Yes, it plays into the trashy rather than the artful side of its franchise, but it embraces it as well, doing a better job of capturing that action-movie intensity than most past efforts have managed. ■

NEED TO KNOW

WHAT IS IT?
A co-operative swarm shooter set in the Alien universe

EXPECT TO PAY
£35

DEVELOPER
Cold Iron Studios

PUBLISHER
Focus Home Interactive

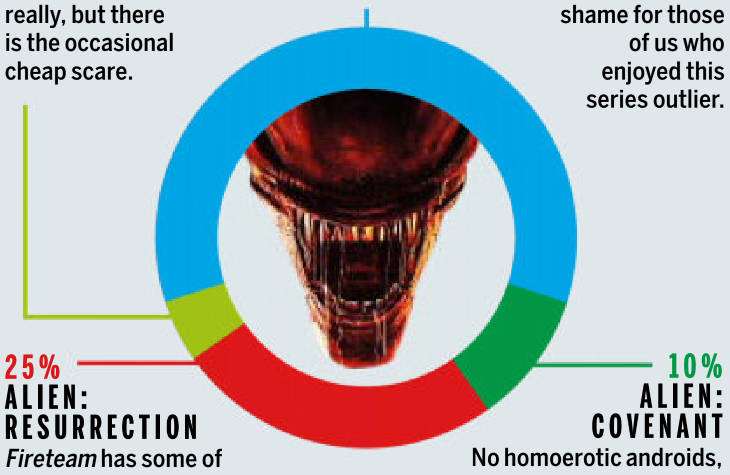
REVIEWED ON
Ryzen 7 5800H, Nvidia GeForce 3070 (mobile), 16GB RAM

MULTIPLAYER
Yes

LINK
aliensfireteamelite.com

GAME OVER, MAN

How much of each movie is in this?



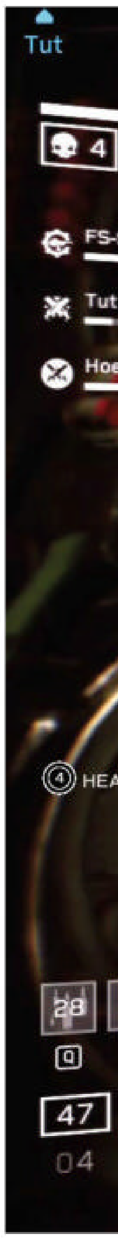
5% ALIEN
Distilled horror and avuncular androids gone bad? Nope, not really, but there is the occasional cheap scare.

60% ALIENS
Squad-based action and a steady strum of radar plips, but lacks the solid action story.

0% ALIEN 3
No prison-break tones or Charles Dance in *Fireteam* – a shame for those of us who enjoyed this series outlier.

25% ALIEN: RESURRECTION
Fireteam has some of the silly dialogue of this late '90s mishap.

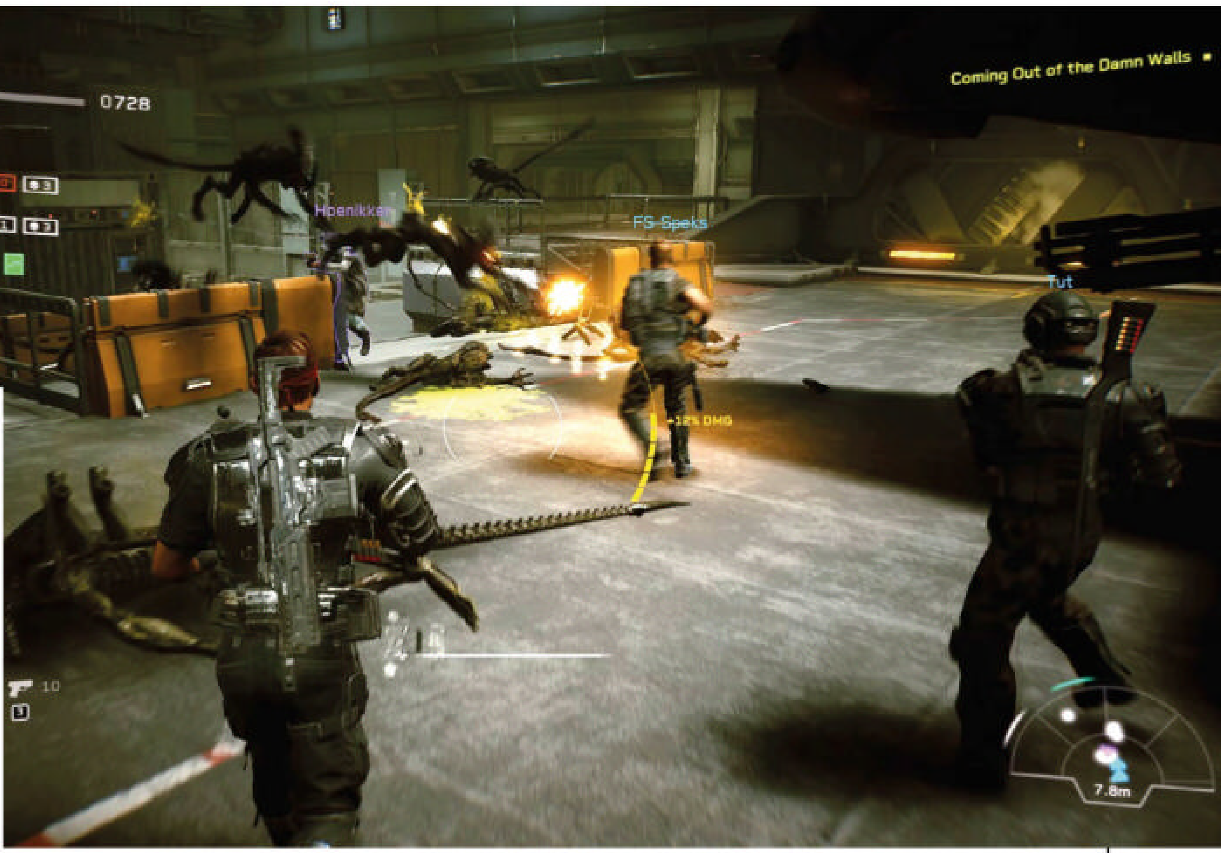
10% ALIEN: COVENANT
No homoerotic androids, but brings in some interesting Engineer lore.

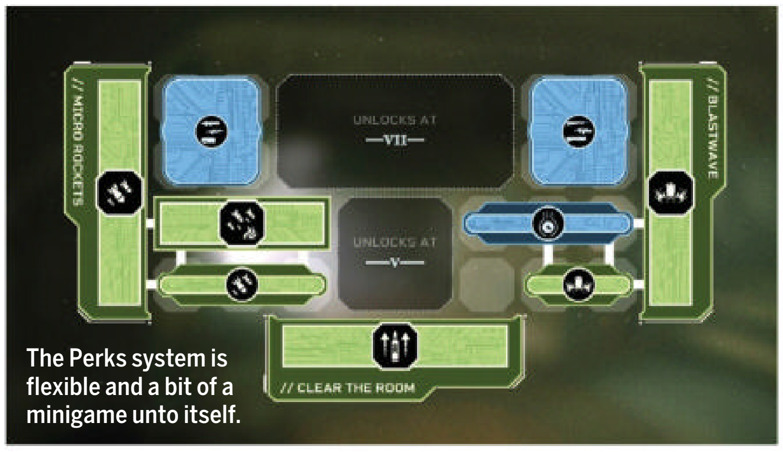


PC GAMER VERDICT

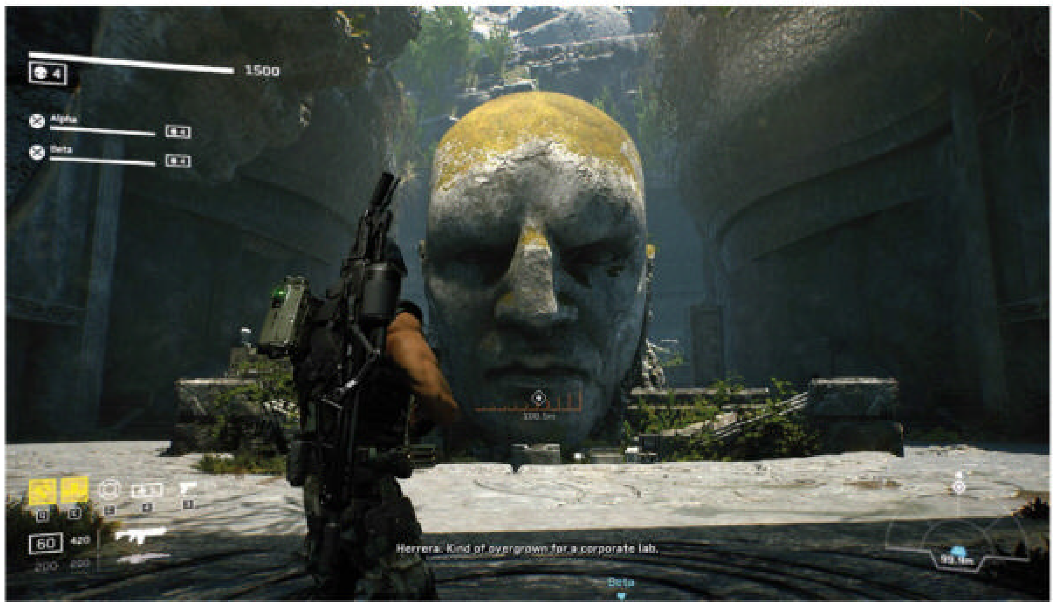
***Aliens: Fireteam Elite* is a fun and flexible swarm shooter that's a little too reliant on being played alongside friends.**

73


0728
FS-Speks
Tut
Hoenikker
Coming Out of the Damn Walls
+12% DMG
7.8m


// MICRO ROCKETS
UNLOCKS AT
—VII—
UNLOCKS AT
—V—
// BLASTWAVE
// CLEAR THE ROOM

The Perks system is flexible and a bit of a minigame unto itself.

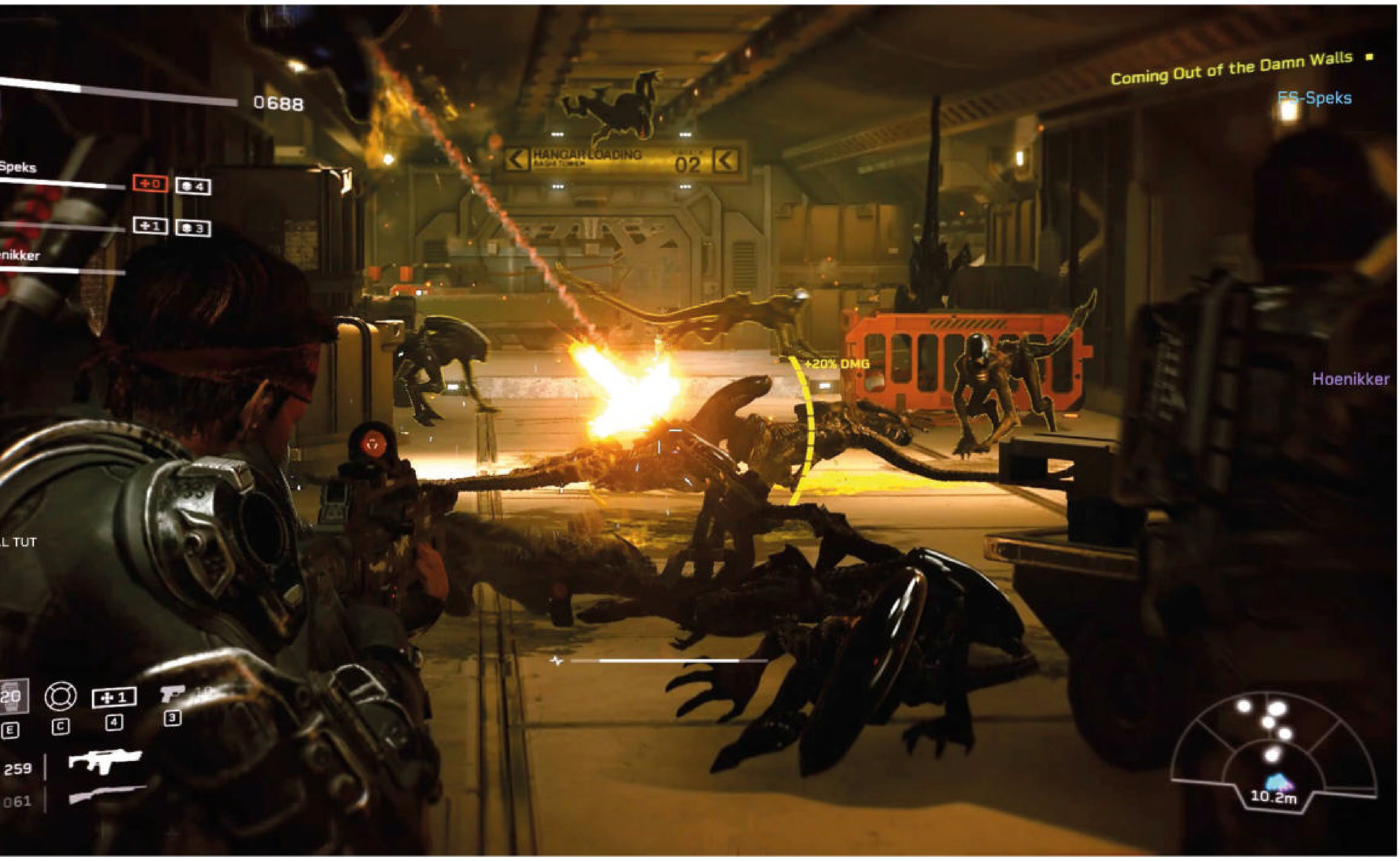

1500
Alpha
Beta
60
Beta

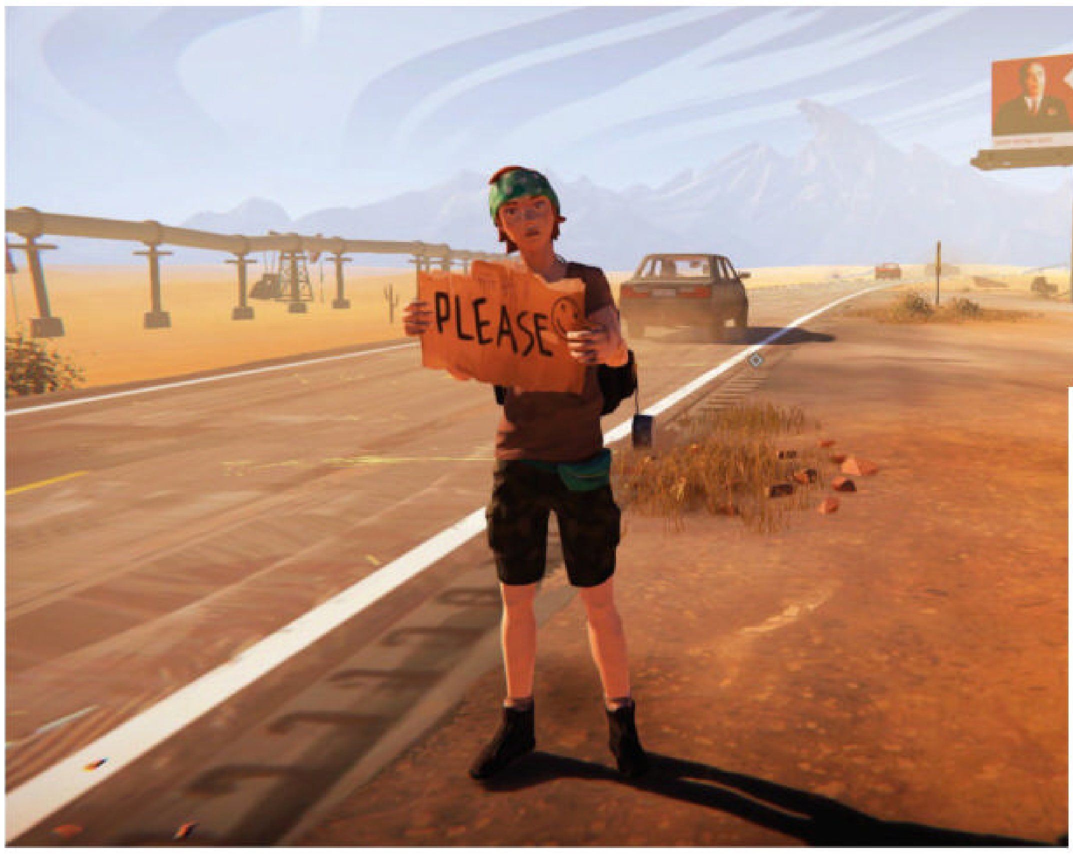
Herrera: Kind of overgrown for a corporate lab.

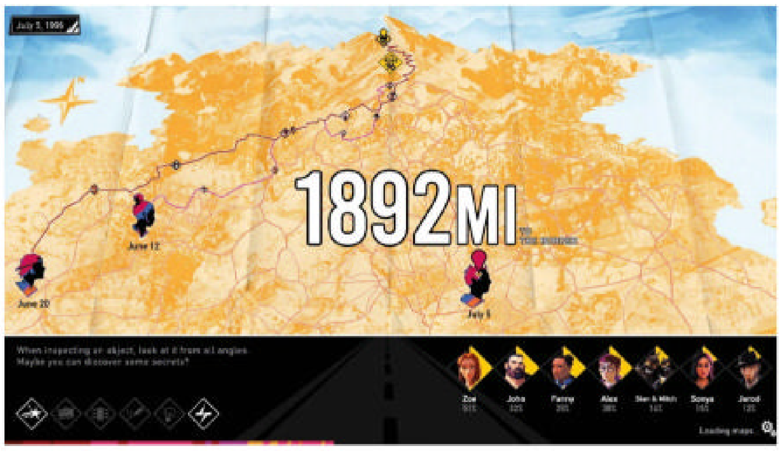
ABOVE: Things can get very messy very quickly once your defences are breached.

FAR LEFT: *Fireteam*'s world and lore will offer some interesting tidbits for series fans.

BELOW: At its best, *Fireteam* offers some of the most frantic action in the Aliens universe.


0688
Speks
nikker
Coming Out of the Damn Walls
FS-Speks
HANGAR LOADING
02
+20% DMG
Hoenikker
L TUT
259
061
10.2m

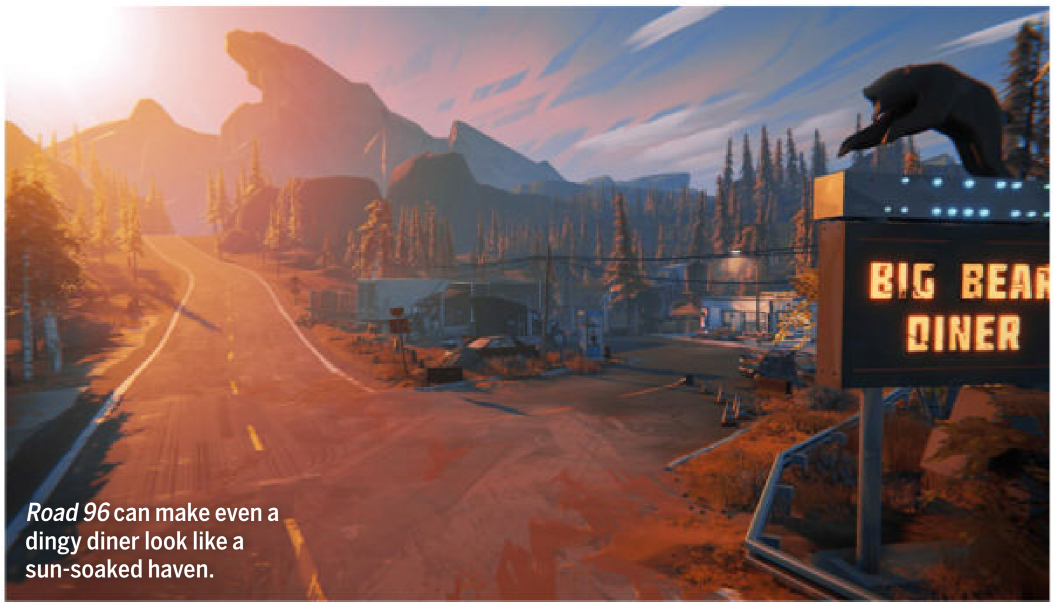

PRESIDENT TYRAK
PLEASE


July 5, 1996
June 12
June 20
July 5
1892MI
Zoe
John
Fanny
Alex
Stan & Mitch
Sonya
Jarod
Loading maps

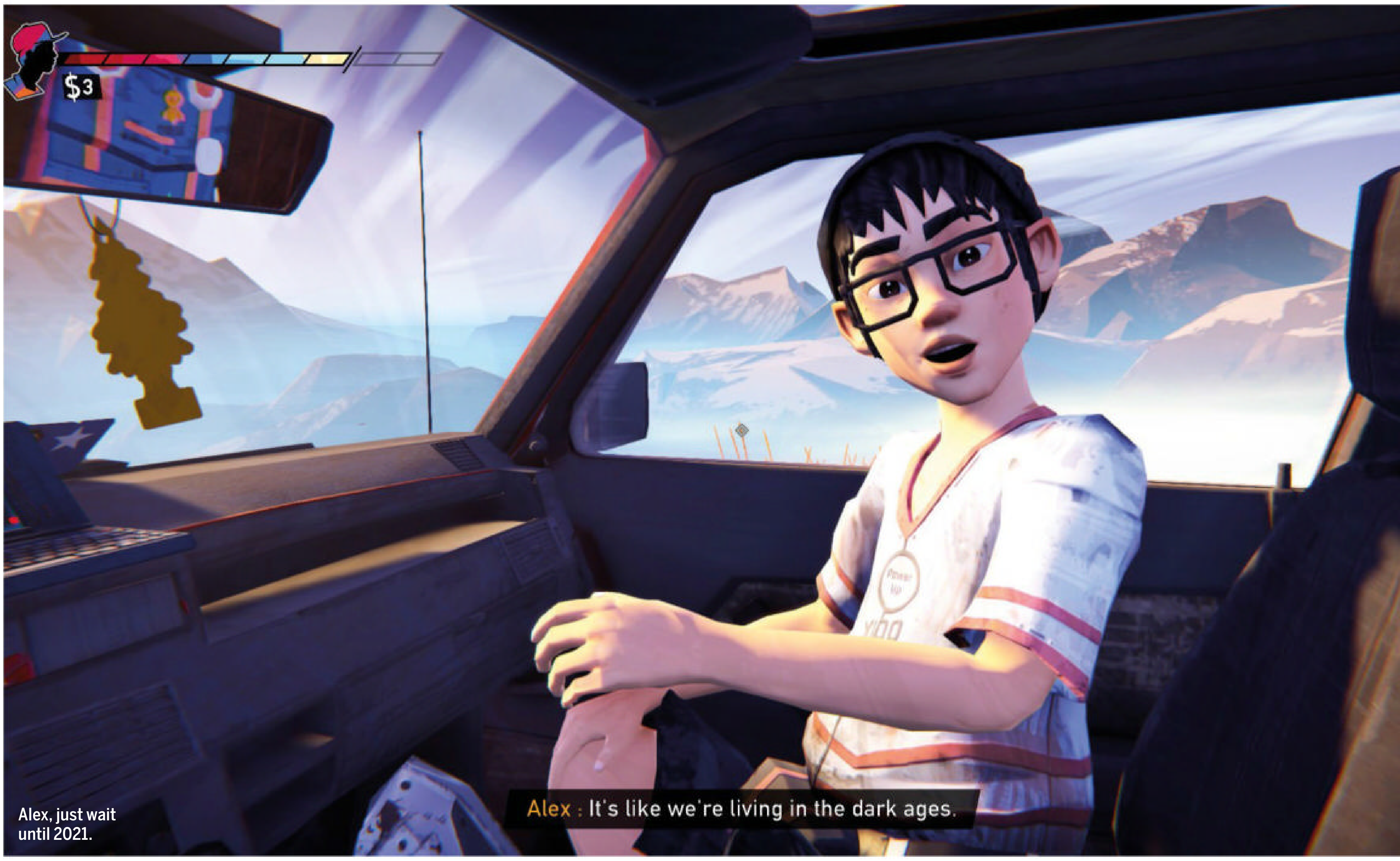
When inspecting an object, look at it from all angles.
Maybe you can discover some secrets?

ABOVE: You'll meet plenty of other teenagers trying to cross just like you.

RIGHT: This would almost be relaxing if I wasn't running from an evil regime.

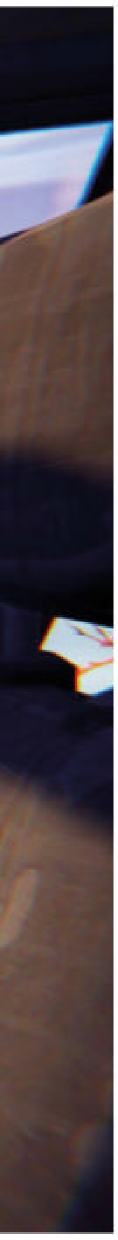

BIG BEAR
DINER

Road 96 can make even a dingy diner look like a sun-soaked haven.



Alex : It's like we're living in the dark ages.

Alex, just wait until 2021.



HIGHWAY OUTTA HELL

Procedural magic is at the heart of hitchhiking adventure ROAD 96

By Rachel Watts

I'm stuffed into a motorcycle sidecar with a bag full of cash, and two bank robbers wearing balaclavas are on the main bike beside me. We're travelling well past 200mph and the cops are hot on our tail, so I'm tasked with picking up wads of the stolen money and chucking them at the tailing police car. As the cash hits the cop's windscreen like a burst of green confetti, I can't help but reflect on how I got myself caught up in this ridiculous situation.

This exhilarating motorcycle chase is one of the many scenarios that *Road 96*'s procedural system has thrown me into. It's a road trip adventure about hitchhiking across Petria, a country slowly being swallowed by a totalitarian government. As a sham election draws ever near, young people have started to flee the country, scared of the impending regime, and you get to witness this change first hand as you switch between different teenage runaways trying to cross the country's border.

Young people have started to flee the country, scared of the regime

Road 96 shares a surprising amount of similarities to a roguelike adventure. Each chapter acts as a new 'run' as you take control of a new teenager, a procedural path taking form as you play.

A run can end up with you getting arrested, dying of starvation, collapsing due to exhaustion, or actually achieving your goal of crossing the border to safety. Every attempt casts you back to somewhere in the country, geographically thousands of miles away from the border, but time continues to move forward in the story.

Every journey challenges you to manage your money and energy meter, both of which you'll need in supply if you want even a small chance of crossing the border. This means trying to make smart decisions when it comes to travelling, each option having both positives and negatives outcomes. Should I spend $7 on a bus ticket to reserve energy, or save the money and hitchhike, risking being picked up by the police?

Passing through seedy motels, grubby gas stations, and highway pit stops, *Road 96* is a story that's constantly moving. Each journey is made from a string of events, and the decisions you make in those scenarios impact the wider story of Petria's political future. You get to decide if you want to be radical in your actions against the government, try and change people's minds by telling them to vote, or decide to wash your hands of the situation completely, keeping your head down and focusing only on leaving this country forever, never looking back.

NEED TO KNOW

WHAT IS IT?
A hitchhiking road-trip adventure about runaway teens

EXPECT TO PAY
£17

DEVELOPER
Digixart

PUBLISHER
In-house

REVIEWED ON
AMD Ryzen 5 3600, 8GB RAM, AMD Radeon RX 5700 XT

MULTIPLAYER
No

LINK
road96.com

ON THE ROAD

Your journey is a dangerous one but it's not without its fun moments. You'll meet an array of recurring characters, like Stan and Mitch, my two bank-robbing buddies who made me an accidental accessory in their heist. I've tried to grapple with a trombone solo underneath the stars with fellow teenage runaway Zoe and got my butt handed to me playing arcade games with a young programmer called Alex. There's plenty of hijinks but my characters have had many sleepless nights lying on flat cardboard boxes, been blackmailed into pumping petrol for an asshole gas station attendant, and forced into the back of a police van. The story hits the sweet spot in road trip stories where it feels wonderful to be travelling and meeting people.

The political side of Road 96 underpins the entire story, but unfortunately, it's a little vapid. It can be simply boiled down to an evil government versus a radicalised group of freedom fighters with some conspiracy sprinkled in. I appreciate that it connects everything together, but it's the personal stories of the characters that are at the heart of the game. Focusing more on how each person is caught up in their countries' mess would have worked fine without an epic story of revolution.

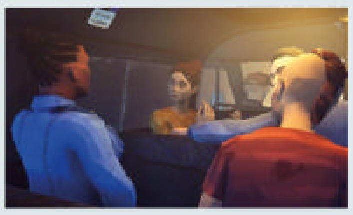
Road 96's take on politics is a little hamfisted, but the interweaving web of procedurally generated stories is impressive. Every decision I made felt like a ripple effect. This tension, together with the characters you meet and their stories, make for a wonderful road trip adventure. ■

TIRE ON TARMAC

Travelling across a totalitarian country is dangerous, but you'll have some options

HITCHHIKE
Taking a chance on strangers is risky, but can save you lots of money and energy.

WALK
The safest way to travel, but zaps all your energy, making for exhaustion and starvation issues.



BUS
You're exposed to more people who might recognise you from wanted posters.

TAXI
Good for distance, but when you're dropped off there may be a police car waiting for you.

PC GAMER VERDICT

Although it's take on politics may be vapid, but *Road 96*'s procedural adventure is a road trip to remember.

77

ROYAL PAIN

KING'S BOUNTY II does both tactics and RPG, but neither very well

By Jon Bolding

K*ing's bounty* is an odd series, always more strategy than RPG, more a game of tactics, cash upkeep, and combat manoeuvring than one of epic roleplaying and exploration. In theory, *King's Bounty II* wants to change that, to make it a story that follows a main character whose choices affect the world. *King's Bounty II* does just that, and it sucks the fun right out of it. Though it has the occasional joy, it simply wastes far too much of your time.

In *King's Bounty II* you pick one of three characters to take through the main story, each of which follows the same plot. Having been released from prison your character takes on a bog-standard fantasy magical apocalypse because a wizard told you you're the chosen saviour. It's nothing you haven't seen before.

You then go out and wander the world, doing lots of sidequests and fighting battles. You don't fight the battles, mind, you stand on the sidelines like a kind of cheerleader and direct your troops around. Those troops fight in tactical battles, with five units dancing around tight hex-based arenas. It's serviceable combat, but the UI does it no favours and the details are predictable systems: skeletons take less damage from arrows, fire attacks burn enemies over time, and spirit creatures are resistant to non-magical attacks.

So there's systems to play with in the game, but nothing too delightful. It doesn't matter that much in the end because for every five minutes of good tactics bits there's ten minutes of staid RPG world wandering. Your character moves with a kind of halfhearted jog, too slow to cover ground. Meanwhile you can jump on your horse, which is much faster, but handles like a stick of butter in narrow areas. It's all just kind of... slow and tedious to progress.

Your commander gains experience over time, getting stats that buff up your troops and magical powers to blast enemies. Both powers and troops come from a customisable roster divided into four factions: Order, Anarchy, Power, and Finesse. Those are also the four tenets which characters follow and that quest branches fall into. They're the alignments of *King's Bounty*, and might leave you feeling cold if you're a polite, chaos necromancer.

Might leave you feeling cold if you're a polite, chaos necromancer

NEED TO KNOW

WHAT IS IT?
A combination of RPG and turn-based strategy game

EXPECT TO PAY
£50

DEVELOPER
1C Entertainment

PUBLISHER
1C Entertainment, Prime Matter

REVIEWED ON
AMD FX-8350, Nvidia GeForce GTX 1070 Ti, 3IIGB RAM

MULTIPLAYER
No

LINK
kingsbountyII.com

RUSSIAN AROUND

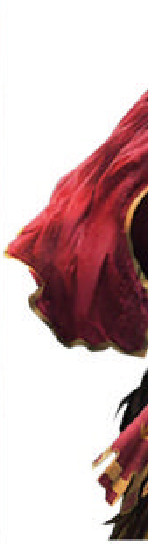
Not that the roleplaying is really a highlight – dialogues don't branch, rather choices are made by picking one of two options during the course of a quest. That wouldn't be a problem if the characters were more interesting: Katharine the mage, for example, is kind of a jerk, where Elise the Paladin is naive to the point of frustration, and Aivar the warrior just doesn't have much personality at all.

That's not to mention the writing, which is awful, and the voice acting, which is worse. I switched to Russian voices after ten hours, which improved the experience a lot. I don't speak Russian: it was just nice to stop the flood of hammy performances.

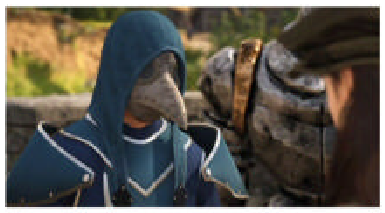
The world itself is lovingly designed, though, one of the real

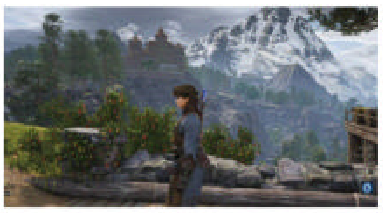
TOP: Bardolf is one of the few standout voice performances.

There are a lot of scenes in *KBII* where someone gets shot with an arrow.



Calm down! Do you want them to keep treating us like pigs? We're still





TOP: Several plots deal with these refugees.

ABOVE: Sadly, you cannot steal this guy's mask and wear it.

pluses of the game as a whole. Little details like benches, gardens, and crumbling statues litter it, people wander back and forth and have small conversations. It has usual touches like workshops, markets and such. Though it lacks the fancy touches of other RPGs like a day-night cycle and dynamic NPC behaviour, the world has a sense of life.

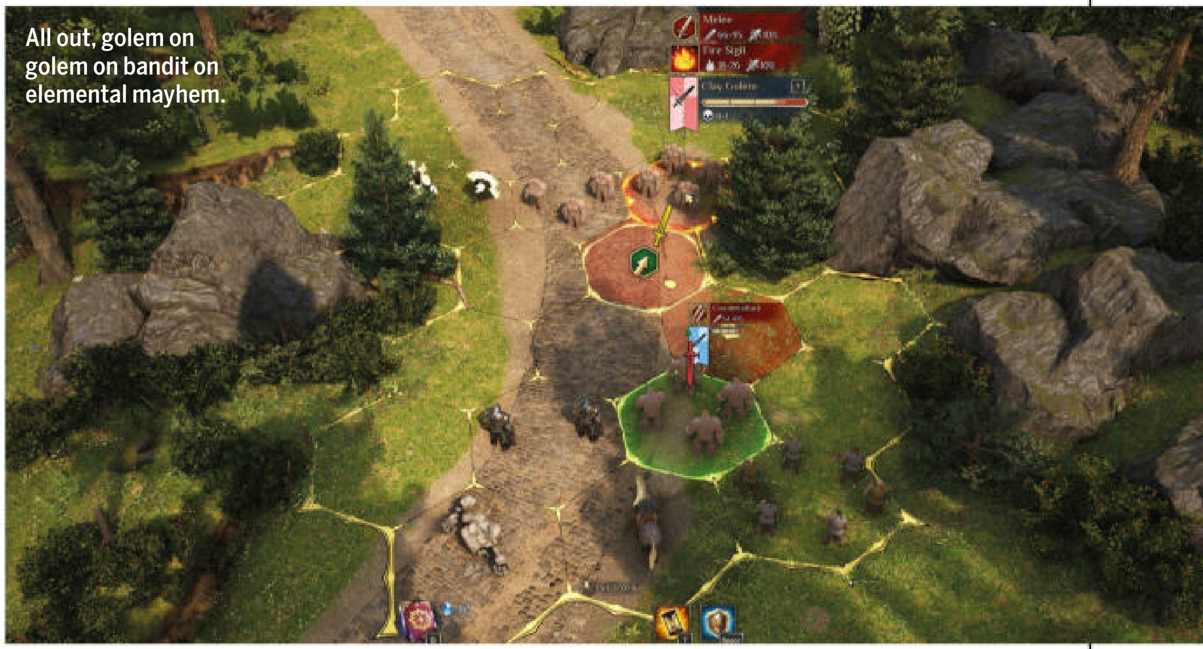
It's a static world for a reason, though: encounters are fixed. As you approach them, a golden ring appears and the enemies for that tactical combat come spilling out of the bushes or whatever to shake their swords at you menacingly. It's hilarious and charming, and serves the game mechanics very nicely. When you start the fight, the camera zooms out and the space around you becomes the battlefield – a great touch in a tactics game.

In the end, this new direction for *King's Bounty* just flops. The art style is detailed, but it ends up looking like top-end graphics from 2012 when a bit of stylisation would have gone a long way – something those who loved the comical, fantasy and fairy tale style of the older *King's Bounty* games are going to sorely miss. ■

PC GAMER VERDICT

King's Bounty II is a unique game, but it's uniquely mediocre and fans of the older games will be a bit miffed.

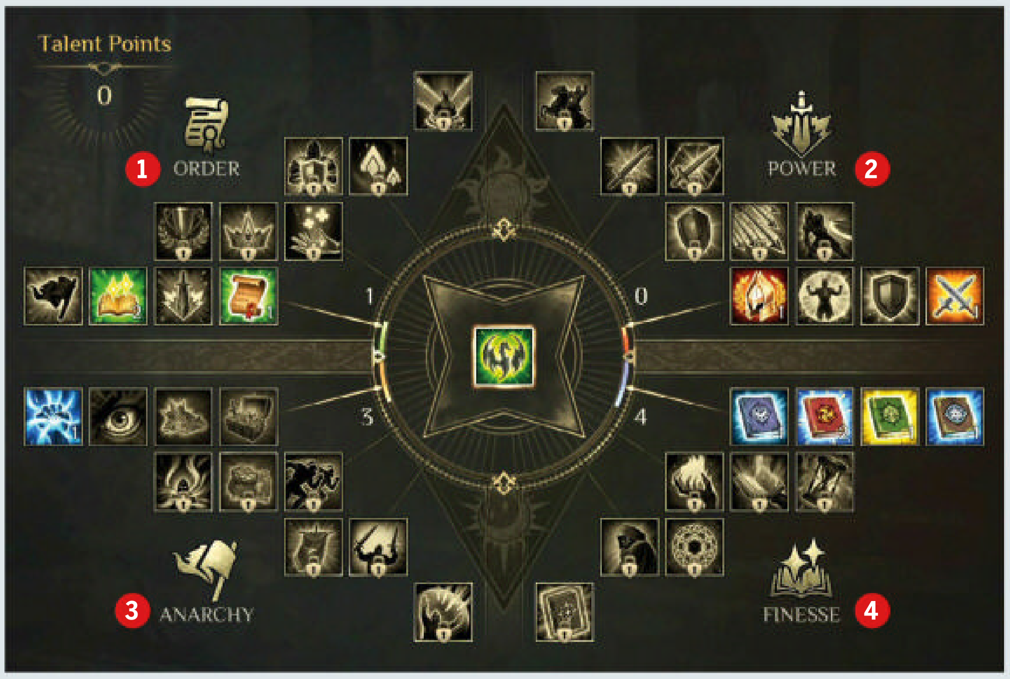
59



All out, golem on golem on bandit on elemental mayhem.

TALENT SHOW

Choosing which talents to focus on will define your campaign



1 ORDER
These abilities focus on mixing diverse units in one force.

2 POWER
Use these talents to get the most out of your troops.

3 ANARCHY
Chaotic talents make your troops a bit more expendable.

4 FINESSE
This is where all the magical support powers are.

18+

WHAT IS
AVAXHOME?

AVAXHOME -

the biggest Internet portal, providing you various content: brand new books, trending movies, fresh magazines, hot games, recent software, latest music releases.

Unlimited satisfaction one low price
Cheap constant access to piping hot media
Protect your downloadings from Big brother
Safer, than torrent-trackers

18 years of seamless operation and our users' satisfaction

All languages
Brand new content
One site

AVXLIVE.ICU

AvaxHome - Your End Place

We have everything for all of your needs. Just open https://avxlive.icu

GALAXY BRAIN

Jump for joy, sorrow, regrets, and more in PSYCHONAUTS 2

By Matt Castle

You can tell a lot about a game's soul by what it deems a 'perk'. In *Psychonauts 2*, Double Fine will sell you a 'beastmastery' pin badge modifier that allows Raz's psychic fist – usually used for thumping and tossing – to stroke woodland animals. You spend money to hurt fewer things. Another pin makes him groove when left unattended; dance like no is watching, when no one is playing. Honestly? It's a tonic.

As headlines go 'Tim Schafer game favours silliness over sadism' is hardly a shocker. But it's been 15 years since the original; time enough to forget how silly *Psychonauts* can be, and the startling places those jokes can take us. Of course, for the game's inhabitants, it's been but three days: wannabe Psychonaut Raz left Whispering Rock Psychic Summer Camp on a rescue mission – seen in VR adventure, *Rhombus of Ruin* – and we rejoin him in its aftermath. A video fills all that in, but first-hand experience is recommended given the juicy callbacks throughout.

And what a start: a Mission Impossible-style con to fool a villain inside his own mind, only for a dental fixation to infect the plan. With its heroes' power to enter and influence the psyche I always thought *Psychonauts* did the Inception thing long before Inception, and this ESPionage only hammers the similarity home. Of course, *Psychonauts* doesn't settle for a dreamscape as humdrum as a rotating hotel corridor. Here you're riding molars, zapping tooth fairies, and descending gurgling throats. It slips down the gullet of this returning fan just as easily.

Fundamentally, not much has changed since 2005. OK, it has an eye-searing prettiness that comes from an extra 16 years of HD know-how. But under levels that are variously knitted, hand drawn, or printed on x-ray film you still sense familiar cogs. It's another throwback to the 3D mascot platformers of the late '90s. An explorable hub world siphons you into standalone levels, all festooned with enough collectibles to give even Banjo and Kazooie cold sweats.

> **Feels like The Incredibles and The Muppets chucked in a blender**

MIND GAMES

The hub is now Psychonauts HQ, which feels like The Incredibles and The Muppets chucked in a blender: its workforce of potato-faced oddballs spitting zingers, while stirring music and retrofuturistic decor sells you on the group's grand mission. After 15 hours I still regularly fast travel to the atrium just to get a hit of its swelling theme. Composer Peter McConnell does incredible work throughout the game, turning his hand to more genres than some might tackle in an entire career.

NEED TO KNOW

WHAT IS IT?
The sequel to *Psychonauts*

EXPECT TO PAY
£55

DEVELOPER
Double Fine Productions

PUBLISHER
Xbox Game Studios

REVIEWED ON
RTX 2080 Ti, AMD Ryzen 5 5600X 6-core processor, 16GB RAM

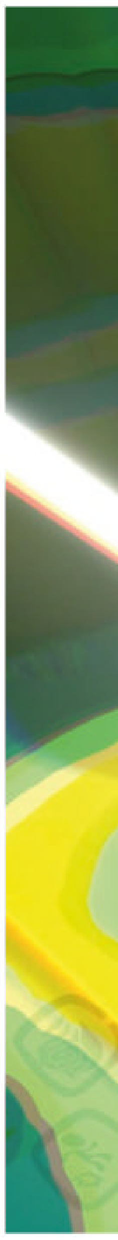
MULTIPLAYER
No

LINK
doublefine.com/games/psychonauts-2

From there, Raz hops inside heads to unpick personal traumas that both infect and shape the mental landscapes. Picture *Mario 64*'s self-contained worlds, if Tiny-Huge Island was a metaphor for Wario's impotence. On one hand they serve up the comfort food of those older platformers. You hoover up hundreds of imaginary figments and earmark hidey-holes to return to with later upgrades. It's solid, standard stuff and will keep completionists happy for 20 hours. But levels are much more than obstacle courses to tidy up.

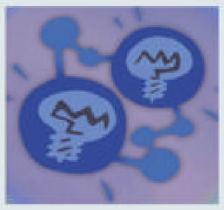
Every mind tells a story. And not in the hackneyed language of audio logs and ten foot-tall 'help me' graffiti. This is level design as exposition. For example, one man's familial alcoholism becomes a toxic swamp where his shame manifests as a riverbed of discarded gin bottles that you navigate before booze drowns them again. Another standout sees a bureaucrat's clinical hospital of a mind hijacked by a casino. Exploring pill-filled pachinko parlours is a visual spectacle and can be appreciated as that, but the metaphorical dimension is just as satisfying to decipher.

Crucially, there's not a tired genre trope to be found. Sick of slippy-slidey ice worlds? Try a level set on the wedding cake of a now-mourning widower. You don't see that in *Crash Bandicoot* (though I've not played *The Wrath of Cortex*, so apologies if I'm misrepresenting its psychological nuance). I love the segment that revisits a relationship in an ageing, fractured mind, each memory getting jumbled with the host's stints as a barber, mailman, and bowling alley attendant. It's wistful and tragic, all while conjuring disasters from human hair or a vortex of unread love letters. Weirdly, it also makes *Psychonauts 2* a good companion piece to *Yakuza: Like A Dragon* as a



TRICKS OF THE MIND

Three new Psi Powers!



MENTAL CONNECTION
Connects the dots between thought bubbles, which is the *Psychonauts* way of saying 'it's a grappling hook'. Using it in the brain of Psychonauts boss Hollis lets you link random ideas to implant new lines of thinking.

TIME BUBBLE
The ability to slow down enemies and deadly propeller blades may not sound very original, but it is taught to you by Jack Black, which earns it a bonus point. New enemies move at humminbird-like speeds until you hit them with it.

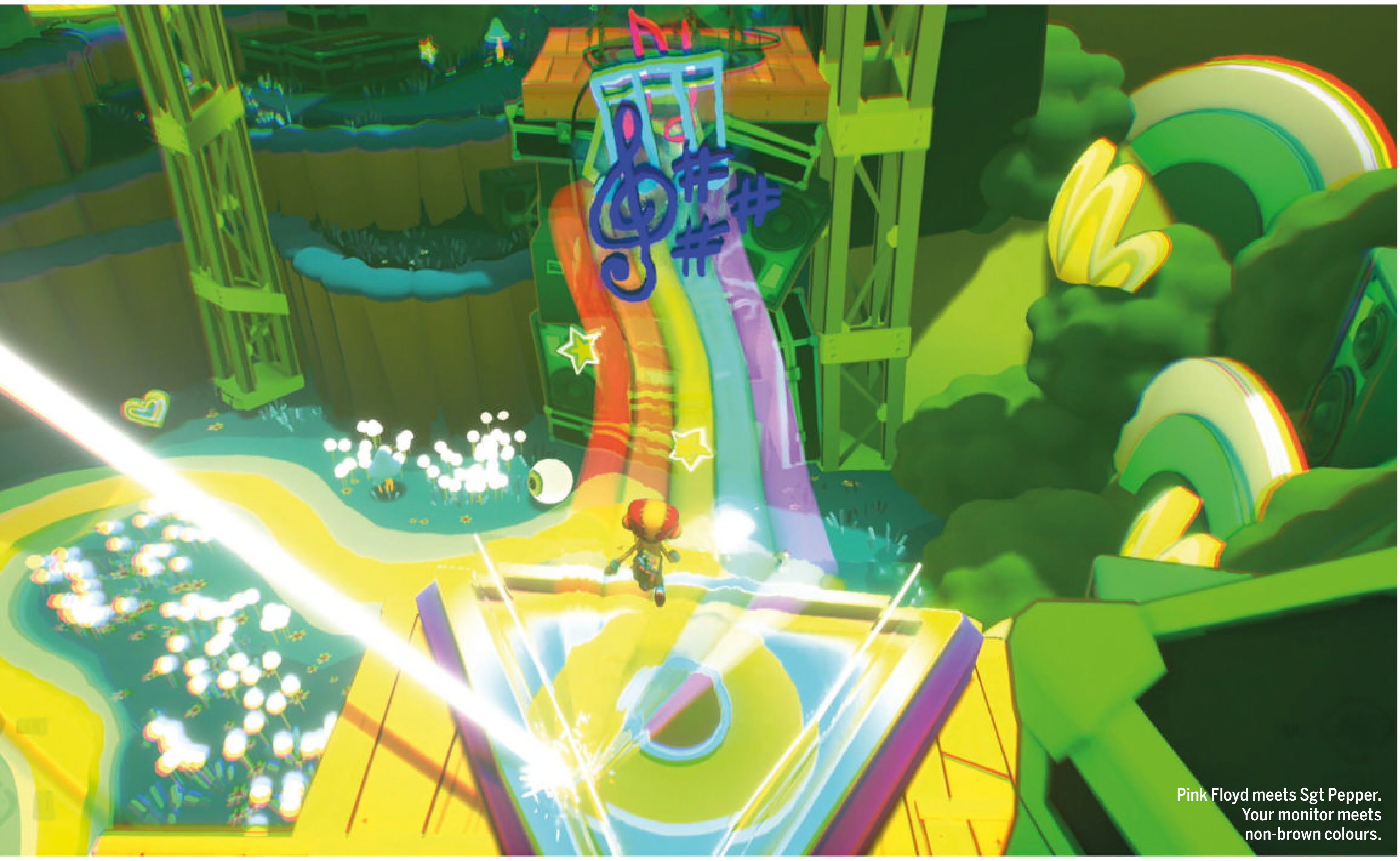
PROJECTION
Two heads are better than one? Yes and no. Creating a clone of Raz lets him slip through cracks the fleshier original can't, but it does mean enduring the helium gibbering of your creation. You can buy a pin badge that modifies him into a mute.

Sufferers of odontophobia should probably skip this one.

Press to throw an object with Telekinesis

FAR LEFT: New friends to win over! (Read: collect stuff for.)

LEFT: Who needs floss when you've got telekinesis?



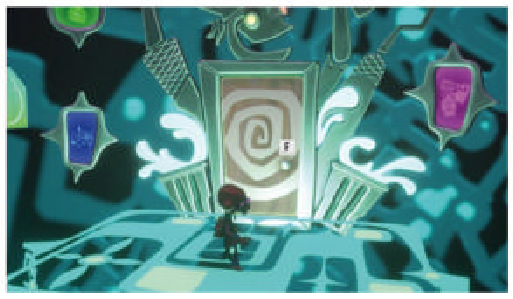
Pink Floyd meets Sgt Pepper. Your monitor meets non-brown colours.

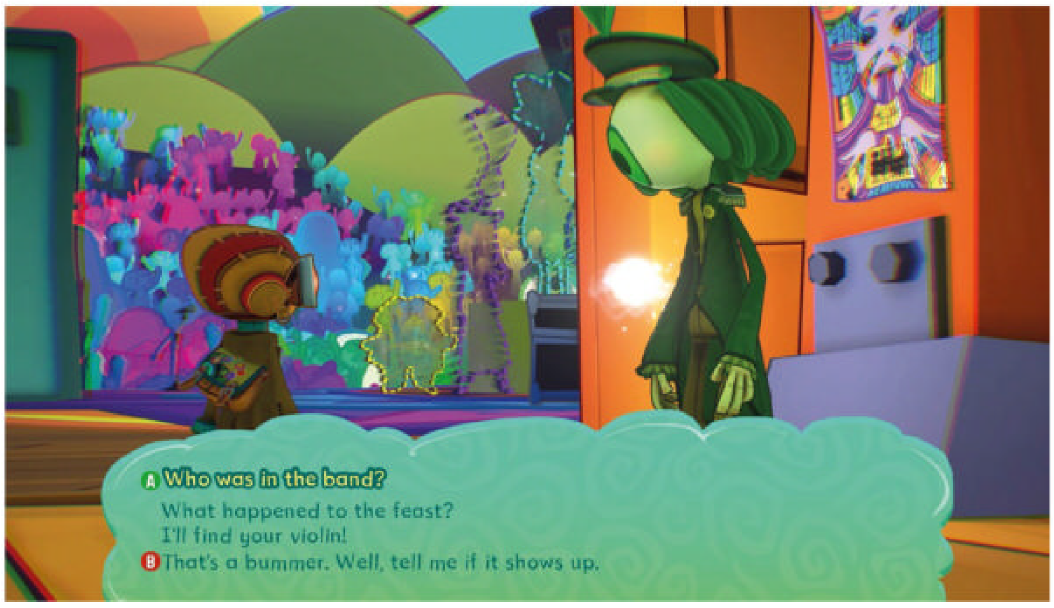
Levitation becomes second nature when nipping around on a pick-up hunt.

RIGHT: Don't talk to strange men in libraries. Especially when they are 2D.

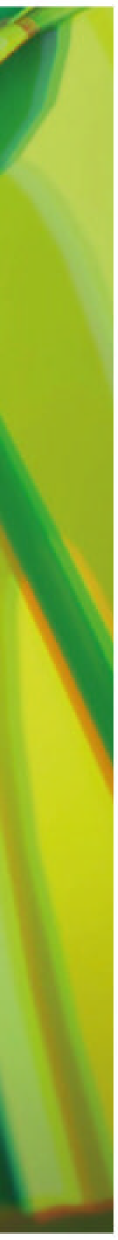
FAR RIGHT: It's rare to get a script this good, so savour every dialogue box.

BELOW: Raz gets cel shaded for his psychedelic music trip.





A Who was in the band?
What happened to the feast?
I'll find your violin!
B That's a bummer. Well, tell me if it shows up.



tale about the turmoils of an older generation that doesn't usually get the gaming spotlight.

BRAIN STORM

This maybe paints *Psychonauts 2* as more dour than it is. This isn't one of those heart-on-sleeve misery fests you sagely nod at while secretly wishing you were playing *Peggle*. This is a game where you explore a shoe while bacteria shriek about an antifungal extinction event. It's one of those games. The best levels still flip the rules as the original's did. One mind's an archipelago explored like a miniature *Wind Waker*; another, a cooking show that becomes a parody of *Overcooked* as you race to feed whooping strawberries into a blender. I'm not sure anything tops the first game's Milkman Conspiracy, but hearing an egg boast about its own execution comes pretty close.

> **As you wander, it begins to resemble a lost LucasArts adventure**

At moments I wonder if Tim Schafer, as the game's writer, is playing a kind of game design Whose Line Is It Anyway?, drawing random words from a hat and attempting to roll with it. What advice would Shakespeare offer Raz? How does a country's military history sound sung as chirping Disneyland ditty? Got any gags about funicular railways? Amazingly, these are the boring questions. In the game's most audacious comic set piece you're given an entire brain to rewire, with every possible combination of thoughts resulting in a punchline. It's a literal joke factory and I can only imagine the dark nights of the soul spent making every combo zing.

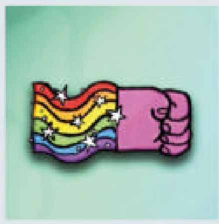
I'd go further and say that as you wander the overworld and chat with fellow 'nauts it begins to resemble a lost LucasArts adventure. The puzzling is more physical, driven by Raz's evolving psychic abilities, but the number of weirdos you get to converse with, mining their dialogue trees for every last laugh, paints a world as vivid and alive as a Rubacava or Mêlée Island. I'm head over heels for The Questionable Area, a daft hit of tourist trap Americana where you half expect to bump into Sam and Max, such is the powerful oddness of its rickety attractions.

One downside to the newness is that I miss the Whispering Rock gang. Bar Raz's (maybe) girlfriend Lili, none of the kid cadets make the trip, and their replacements, Raz's rival interns, don't have the same impact. Their shared standoffishness blurs together and the story sidelines them after a fantastic first act. That opening stretch does such a good job establishing characters and stakes, and delivering a payoff (honestly, it's like a Pixar film in a game) that doesn't leave those relationships anywhere to go. Well, aside from offering mundane side missions – a plodding bit of zig in a world that strives to zag.

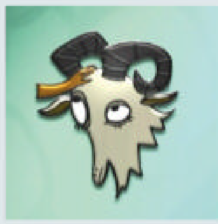
It's a rare moment of untapped potential in a sequel that improves on its predecessor in almost every regard. Just the act of moving makes it easier to recommend. If Raz entered my mental scar tissue he'd find the platforming from *Psychonauts 1*. Part of me never left the Meat Circus. In 2021 Raz is responsive, his rope and pole gymnastics are no longer a mess of button presses and the camera has your back, or whatever side you want it to have. Throw in generous checkpointing and no life counter and it's as welcoming a 3D platformer as you'll see outside of Nintendo.

PINCREDIBLE

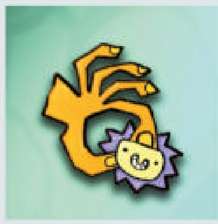
The modifier badges I wear with pride



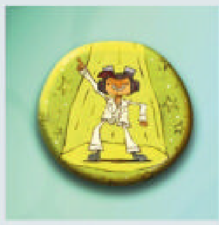
RAINBLOWS
It's punching, but prettier. Good for screenshots, which is good for PCG's art editor, which is good for my future work prospects.



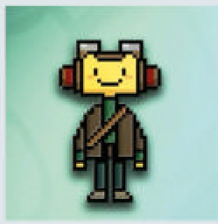
BEASTMASTERY
Can you pet the dog? I've not found one. But you can pet a rat, a goat, and a squirrel. Good luck launching a Twitter feed about those.



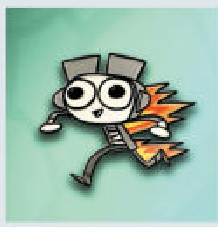
PLUCKY
When there are no objects to throw, just tear a chunk out of the ground. Grim implications in levels made of flesh/other assorted meats.



BOBBY PIN
Whispering Rock bully Bobby Zilch doesn't make the cut, but his irritating body popping does. Newcomers can skip this one.



PIXEL PAL
Pixelate Raz's new clone. Included in this boxout because it looks cool and I'd like someone to make a physical version of it.



PSI CLONE
Speeds up Raz's new clone. Only included because it looks like he's on fire and once you've met him, you'll appreciate that idea.

POWER PLAY

Combat is likewise revamped, with an easier dodge roll and dollop of autoaim that unlocks the potential of psi powers I found too fussy in the original. Just being able to telekinetically lob scenery without wrestling with throwing arcs makes for rambunctious rumbles from the outset. And there's more enemy variety this time as flying imps, mine-laying sprites, and gavel-wielding judges give fights a distinct flavour and ensure every ability has a chance to shine. Remapping powers is still a faff, but if that's the price of meaningful brawls, so be it.

Given how Double Fine spruces up the thrashings it's perhaps surprising how stingily it rations them out. Fights are rare in most levels – non-existent in the hub world – which makes a new upgrade system slightly superfluous. It's hard to get excited about nimbler lobs and woomfier flames when you use them so infrequently. It makes post-credits play particularly strange: you're essentially returning to empty worlds to push up your cadet rank and buy upgrades and power-ups with no enemies to use them on. It's just you and a whole lot of squirrels to scritch.

Maybe it shouldn't come as a surprise that the places *Psychonauts 2* bows to convention are where Double Fine is a little more unsure of itself. This has always been a team more comfortable taking creative risks – its studio logo is a baby fired from a cannon, after all – and it's that aspect I choose to celebrate. Not just the wild comic swings, but the fact that this is a mainstream videogame that deals sympathetically with the messy business of being human. Strip away the screeching eggs and bacterial prophets of doom and it's a tale of regrets and the path out of them. I don't think playing *Psychonauts 2* will become one of them. So don that beastmastery badge: pats on the back for all involved. ■

PC GAMER VERDICT

Improved platforming underpins a glorious return to one of gaming's most inventive and empathic universes.

89

SIN CITY

A deep and enjoyable time loop mystery awaits in THE FORGOTTEN CITY

By Chris Livingston

T*he Forgotten City* is a time loop game, one that makes excellent use of its magical reset button. You begin the adventure in the present day, stumbling into some ancient Roman ruins filled with golden statues before being whisked back in time through a portal. You arrive in the same Roman city, but now it's pristine and all those statues are living people. What happened to them? Why were they turned into gold?

The answers to those questions require lots of conversations with the citizens, who are almost without fail well-crafted characters, many with troubling secrets and interesting stories to tell. And the time loop is your best weapon, transforming you from a confused newcomer to a detective in a city full of suspects. It's a satisfying way to investigate, rewinding the clock to the start of the day to meet the same people and witness the same events, only with new eyes and new information.

As with all utopias, there's a dark catch to the reason the city feels so pleasant and peaceful. If anyone in the city commits a sin like stealing or killing, the ground rumbles and people begin turning into gold statues. You must race back to the portal, which resets the day, giving you a chance to do things differently or maybe try out a completely new avenue of investigation.

MOD NATION

The Forgotten City began as a mod for *Skyrim* before being recreated in the Unreal Engine. But its *Skyrim* roots are still apparent in the looks and animation of the characters and the dialogue system. Where it outdoes *Skyrim* is in those conversations, which are well-written and wonderfully performed. The dialogue feels natural despite the fantastical setting of an ancient city trapped in time.

> **Began as a mod for *Skyrim* before being recreated in the Unreal Engine**

The smaller mysteries and sidequests are especially fun to solve. A woman has been poisoned to death, but how could that be possible when murder is a sin that should bring on the end of the city? Trust me, I know: the first thing I did when I got my hands on a bow was shoot an arrow directly into someone's head, and the world immediately began to end. So how did someone manage a murder without statue-geddon happening? It took a few time loops to save her from dying, and one or two more to figure out how to save her every single day without having to do it myself. *The Forgotten City* is about repeating things over and over, but it does a lot to make sure those things don't become irritating chores.

And stealing isn't permitted, but if someone else commits a sin and triggers the apocalypse, is there really any harm in me looting a few chests of gold while I'm scampering back to the portal? Probably not! It's a free sin! It certainly doesn't hurt that I spent the money I stole to buy an overly-expensive item from the same guy I stole the money from. And he was none the wiser, thanks to the ever useful time loop.

Yes, you not only possess your memories of the day, you also keep the physical items you collect between restarts. Find a key to a locked door and you'll never have to go back and retrieve it again. And discovering your own loopholes in the sin system is enjoyable. Maybe I can't kill someone without all hell breaking loose, but there are ways to trick people into dying that slowly become apparent when you've spent a little time in the city – particularly if you've become aware of a dangerous place to stand because you saw someone else get crushed to a pulp there a few resets ago.

The Forgotten City has four different endings, so there are plenty of reasons to spend extra time soaking up the finer details of this mysterious world and getting to know a collection of interesting characters even after you've solved it. If you have to relive a single day over and over again, this is a good one. ■

NEED TO KNOW

WHAT IS IT?
A first-person time loop mystery set in an ancient Roman city where a single sin kills everyone

EXPECT TO PAY
£20

DEVELOPER
Modern Storyteller

PUBLISHER
Dear Villagers

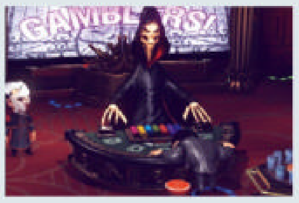
REVIEWED ON
RTX 2080, Intel i7-9700K, 16GB RAM

MULTIPLAYER
No

LINK
forgottencitygame.com

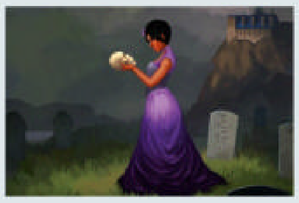
LOOPERS

There are lots of time loop games on PC. Here are some of our favourites

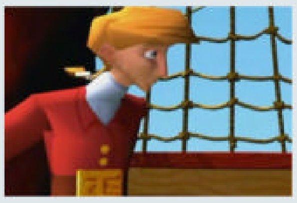


THE SEXY BRUTALE
Prevent a series of grisly murders from happening in a bizarre and beautiful mansion.

OUTER WILDS
Explore a doomed solar system and untangle its mysteries in one of 2019's best games.



ELSINORE
Every four days the world resets in this clever adventure set in Shakepeare's Hamlet.

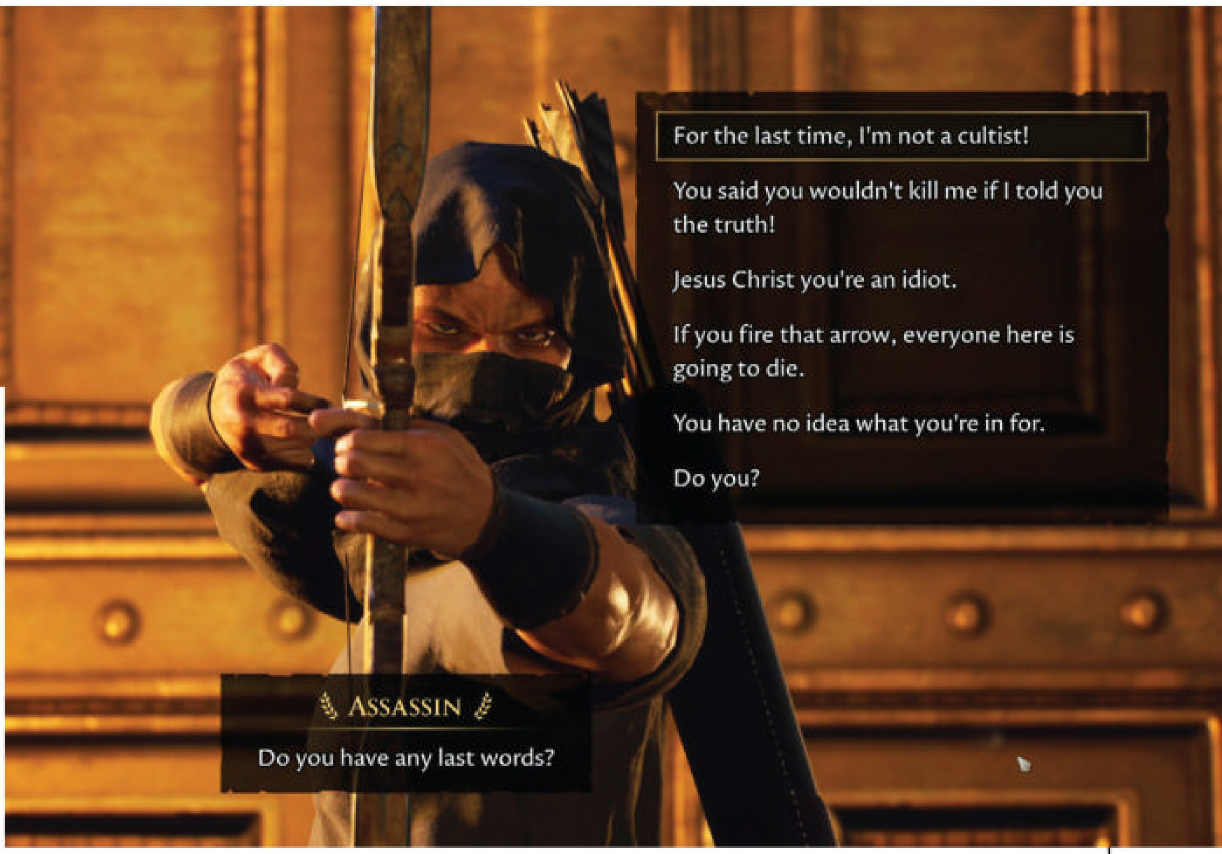


ESCAPE FROM MONKEY ISLAND
Guybrush meets his future self, then repeats that when he meets his past self.

PC GAMER VERDICT

84

***The Forgotten City* is an intriguing mystery with some outstanding writing and performances.**



For the last time, I'm not a cultist!

You said you wouldn't kill me if I told you the truth!

Jesus Christ you're an idiot.

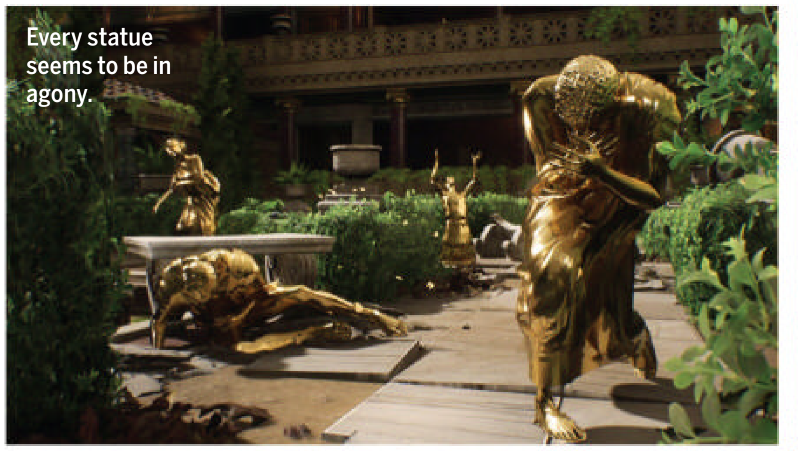
If you fire that arrow, everyone here is going to die.

You have no idea what you're in for.

Do you?

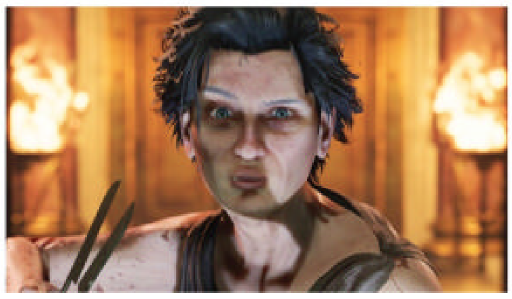
ASSASSIN

Do you have any last words?



Every statue seems to be in agony.

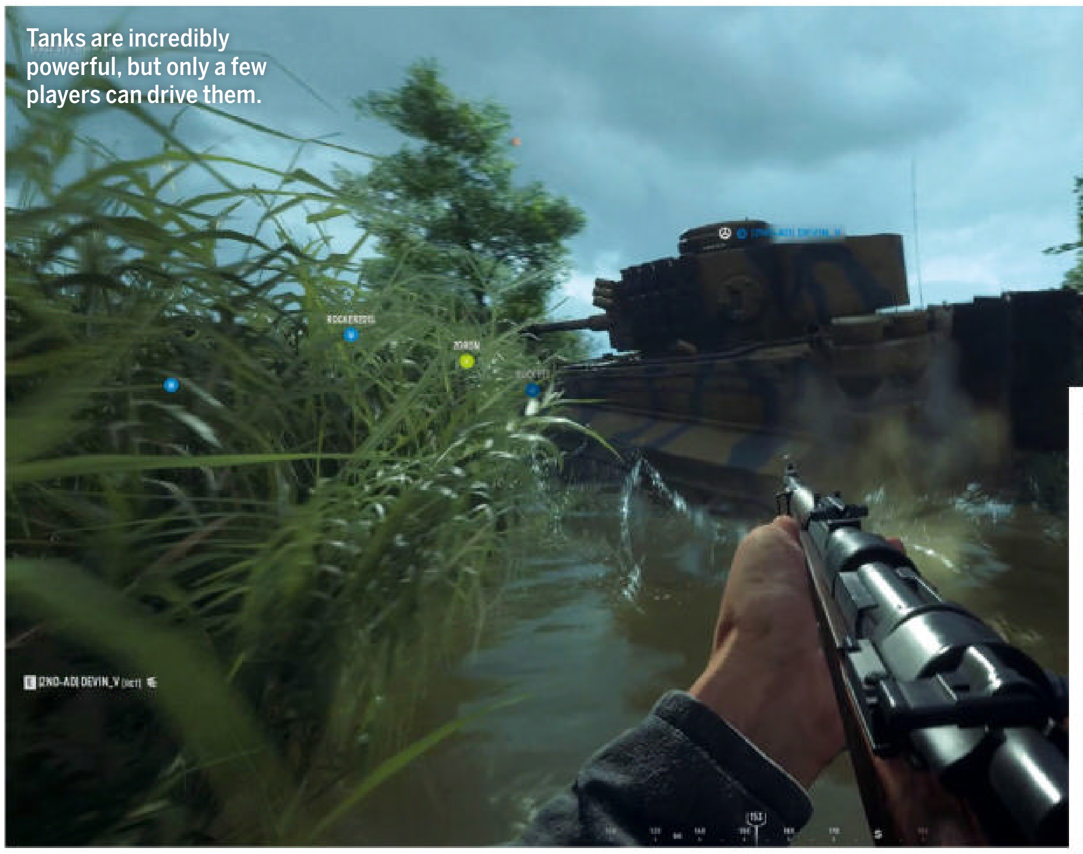
Not everyone is happy to see you.



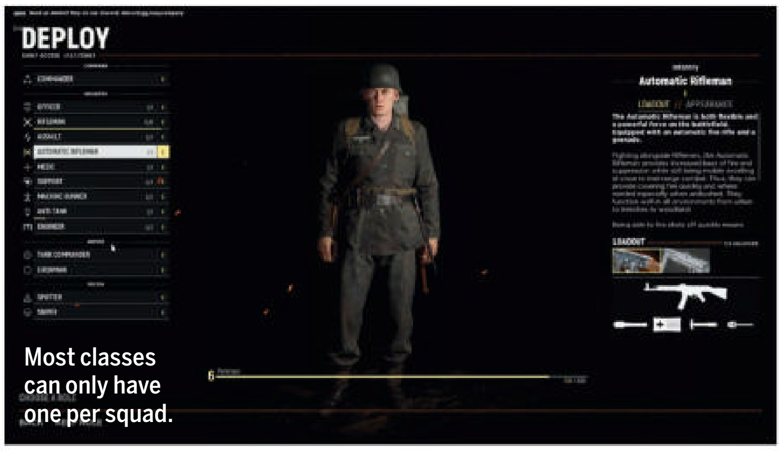
ABOVE: You're not the only outsider visiting the city.

LEFT: The man in charge... but for how much longer?

There's a bit of combat, but this isn't *Skyrim*.


ROCKERS515
ZORSM
[2ND-AD] DEVIN_V

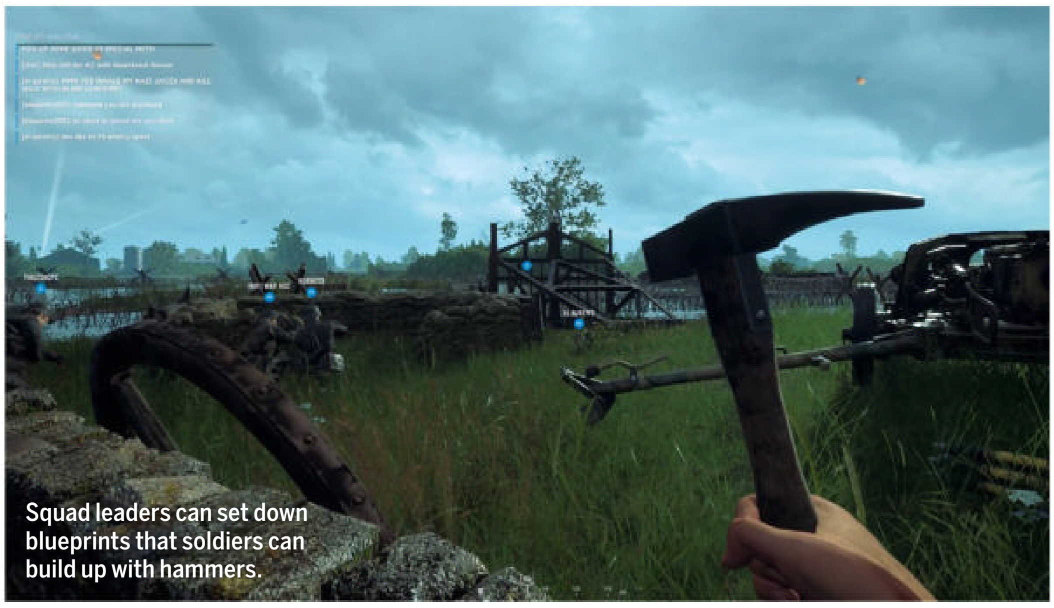
Tanks are incredibly powerful, but only a few players can drive them.


DEPLOY
Automatic Rifleman
LOADOUT

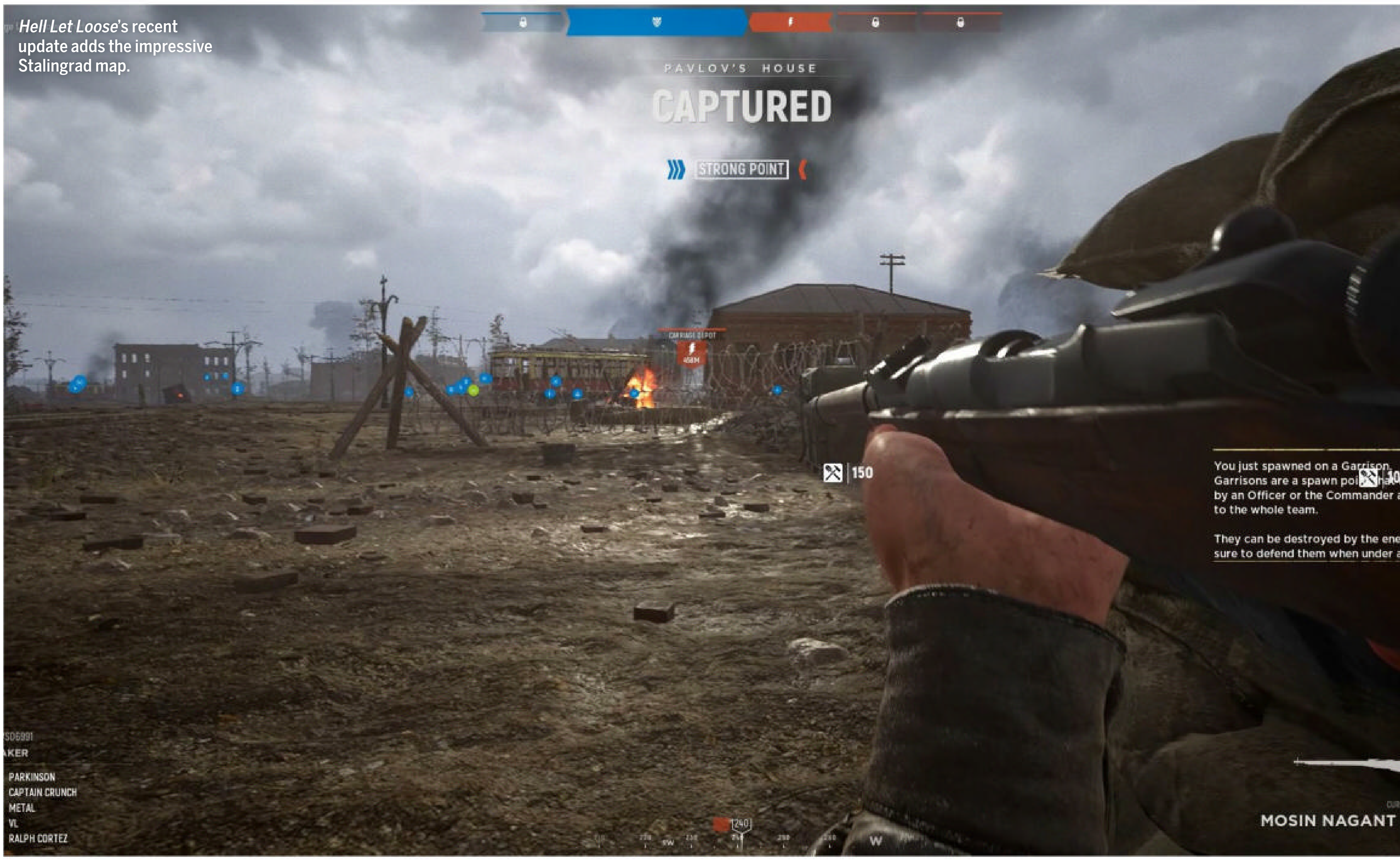
Most classes can only have one per squad.

RIGHT: *Hell Let Loose*'s sounds aren't great, but the Garand's 'ting' is satisfying.

BELOW RIGHT: Any player can bandage their own wounds, but only medics can revive.



Squad leaders can set down blueprints that soldiers can build up with hammers.


PAVLOV'S HOUSE
CAPTURED
STRONG POINT
CARRIAGE DEPOT
150
PARKINSON
CAPTAIN CRUNCH
METAL
VL
RALPH CORTEZ
MOSIN NAGANT

You just spawned on a Garrison.
Garrisons are a spawn poi
by an Officer or the Commander
to the whole team.

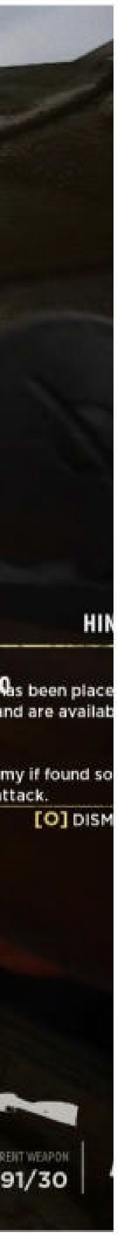
They can be destroyed by the ene
sure to defend them when under

Hell Let Loose's recent update adds the impressive Stalingrad map.

DEVIL'S IN THE DETAILS

HELL LET LOOSE is a WWII military sim that doesn't quite sweat the small stuff enough.

By Morgan Park



Hell Let Loose is the sort of game that convinces me we're in the golden age of the multiplayer FPS. No matter what kind of first-person shooting you're into, there's probably a good game out there designed to scratch your specific itch. For military sim fans, *Hell Let Loose* is one of those games. It answers the question, "What if there was a truly hardcore *Battlefield*?"

The main game mode is basically one huge match of Rush with one team pushing and the other defending, but you can't just respawn on a squadmate every time you die. You can only respawn on Outposts placed by a squad leader or at larger Garrisons that have to be built from scratch. Let the enemy overrun your Garrison and you're forced to run over a kilometre back to the fight. Yes, it's that kind of game.

It's also the kind of game where one or two bullets kill, and it's as brutal as it sounds. I would often die before I could even tell where the shot came from, and revives are only possible if there's a medic around (there's usually not).

If you've spent any amount of time in *Squad* or *Insurgency* then the lethality will be familiar, but the dynamic changes significantly when almost everyone is carrying a WWII-era bolt action rifle. Most classes can't just spray-and-pray on full auto, so every shot has to be carefully considered alongside travel time and bullet drop.

Hell Let Loose's emphasis on teamwork, respawn management, and vehicles will instantly make sense if you've played *Squad* or its WWII spinoff *Post Scriptum*.

Crucially, though, Black Matter has simplified most of the logistical mechanics that can bog down 90-minute *Squad* matches. Constructing a Garrison building that the entire team can respawn at is way faster and takes half the effort as in *Squad*. Building materials and ammo don't have to be manually loaded into trucks and driven somewhere, either. Instead, certain classes can set down nodes that automatically produce resources for the whole team, similar to a real-time strategy game.

On one hand, I appreciate that these simplifications make *Hell Let Loose* more accessible. It's great that you can jump into almost any class and quickly get a grasp on things. On the other hand, *Squad*'s logistical strategy layer is a huge part of its charm. When you can spend an entire match making supply runs for teammates, it really sells that you're a small cog in a large machine. *Hell Let Loose* is just fighting – fun, but less distinctive.

> **I want to be engrossed in how overwhelming a battle can be**

NEED TO KNOW

WHAT IS IT?
A large scale military FPS

EXPECT TO PAY
£40

DEVELOPER
Black Matter

PUBLISHER
Team 17

REVIEWED ON
RTX 2060, Ryzen 5 2600 3.4GHz, 16GB RAM

MULTIPLAYER
Competitive up to 100 players

LINK
hellletloose.com

HELL TO PAY

My main nitpick is with sound. Coming from dozens of hours in *Squad*, part of that game's immersion is letting the game overwhelm my ears with extremely loud guns, tank fire, and explosive ordnance. When everything is tuned correctly, a gun should be so loud that I can't hear my teammate over the radio. This is where *Hell Let Loose* kinda falls flat. Gun sounds, no matter how much I mess with audio sliders, the game never gets loud enough for my liking.

I've heard lots of 'whizzes' and 'pops', but *Hell Let Loose* lacks the intimidating 'crack' you hear when a bullet breaks the sound barrier next to your face. The standard rifle sounds for all three playable factions (US, Germany, and Russia) sound more like bassy cannons than piercing screeches. It's a cool effect on its own, but the noise doesn't carry well over a distance.

I know I'm splitting hairs pretty thin with ultra-specific audio preferences, but my fun in milsims really does come down to the details. I'm certainly not running a kilometre to the front line or getting sniped from a random bush because I want a perfectly balanced, symmetrical competitive shooter – I want to be engrossed in how overwhelming (and unbalanced) a real battle can be.

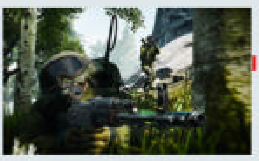
Hell Let Loose does that about as well as other *Battlefield*-like milsims, but it's also really similar to a few other games that have been around longer, and I'm not sure the audience for the niche genre can support them all. I think *Squad* will continue to be the milsim I come back to every few months, but if straightforward WWII action is what I'm after, *Hell Let Loose* is a worthy option. ■

WAR NEVER CHANGES

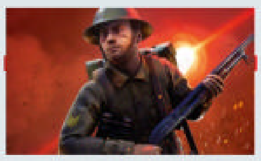
Military sims through the years

PROJECT REALITY (BF2) 2005
This subgenre of milsims kicked off in 2005 with an overhaul mod for *Battlefield 2* called *Project Reality*.

POST SCRIPTUM 2018
Originally a mod for *Squad*, Periscope Games partnered with Offworld Industries to make a WWII spinoff of the FPS called *Post Scriptum*.



SQUAD 2015
Some of the *Project Reality* mod's original devs banded together to make a modern, version of the game.

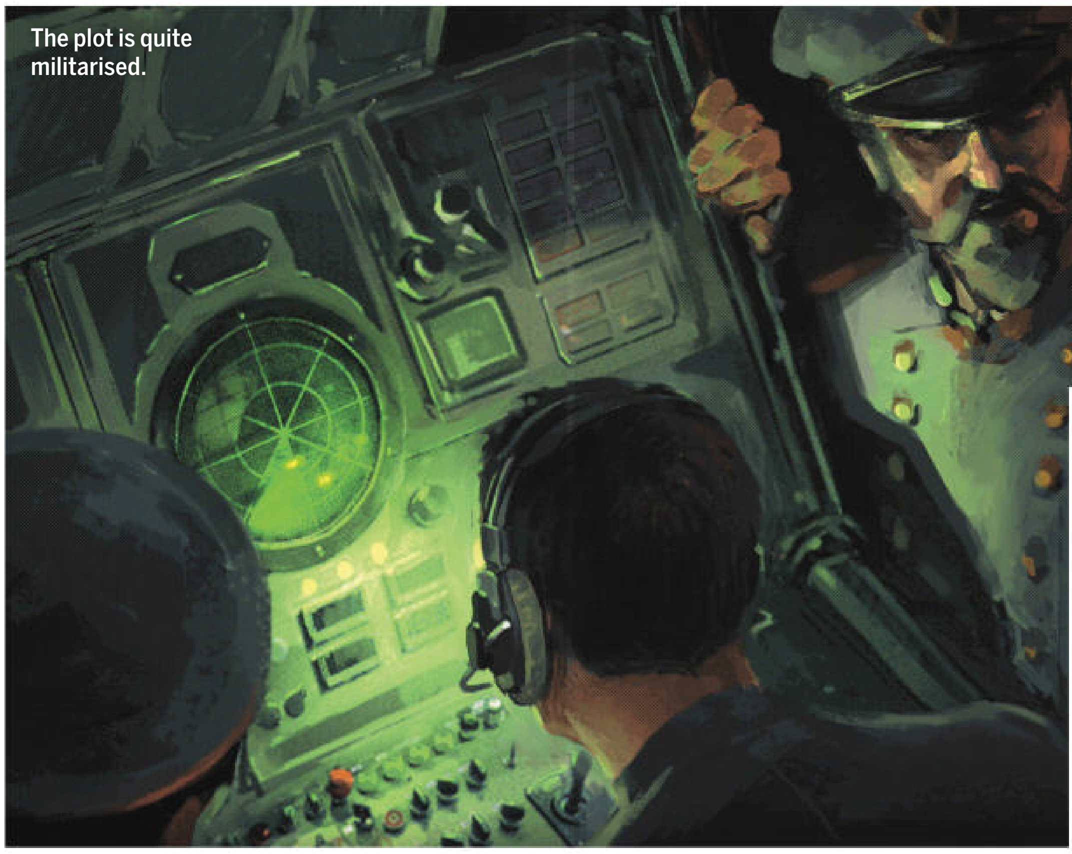


BEYOND THE WIRE 2020
A more simplistic take on *Squad* made in partnership with Offworld Industries by new studio Redstone Interactive.

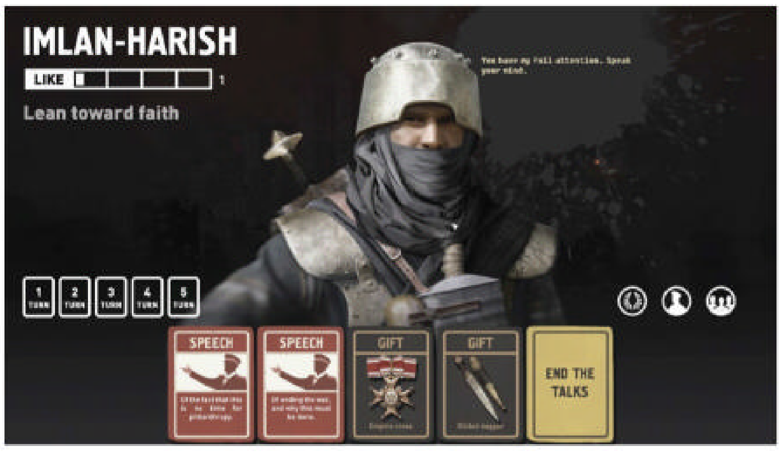
PC GAMER VERDICT

A fun and accessible introduction to milsims, but I miss the complexity, detail, and depth you get with others in the genre.

70

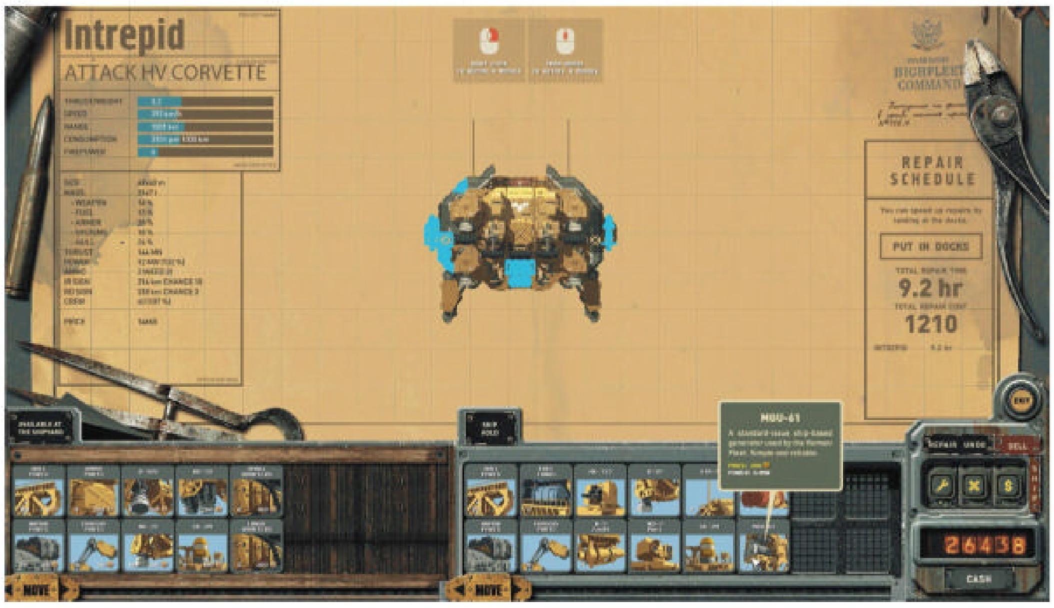


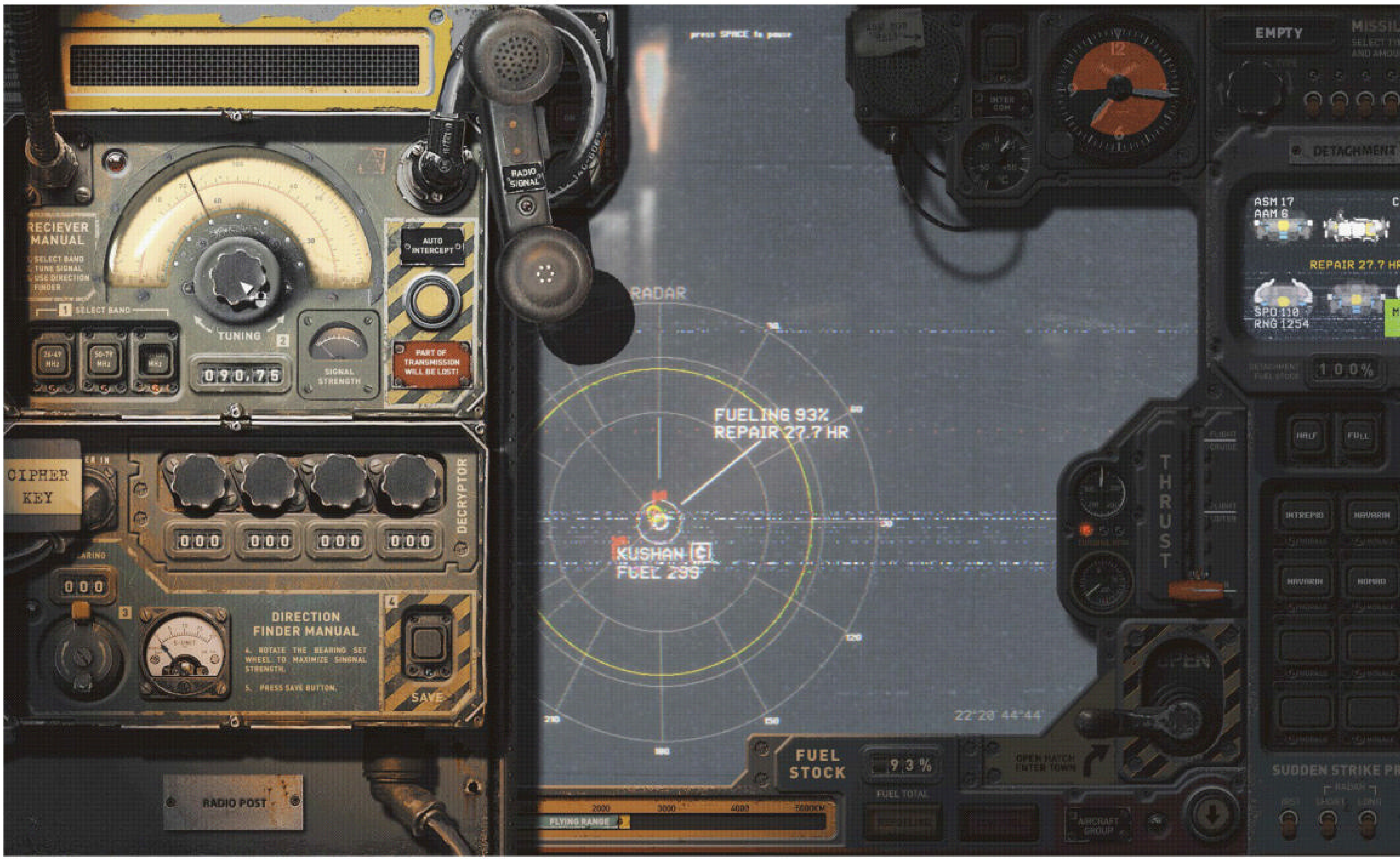
The plot is quite militarised.


IMLAN-HARISH
LIKE
Lean toward faith
1 TURN
2 TURN
3 TURN
4 TURN
5 TURN
SPEECH
SPEECH
GIFT
GIFT
END THE TALKS

FAR RIGHT: Repairing and customising your ships feels ominously complex.

BELOW: Hope you like turning dials!


Intrepid
ATTACK HV CORVETTE
REPAIR SCHEDULE
PUT IN DOCKS
9.2 hr
1210
MGU-61
26438
CASH
MOVE
MOVE


press SPACE to pause
RECIEVER MANUAL
SELECT BAND
TUNING
0 9 0 , 7 5
SIGNAL STRENGTH
AUTO INTERCEPT
PART OF TRANSMISSION WILL BE LOST!
RADIO SIGNAL
CIPHER KEY
DECRYPTOR
000
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DIRECTION FINDER MANUAL
SAVE
RADIO POST
RADAR
FUELING 93%
REPAIR 27.7 HR
KUSHAN
FUEL 299
FUEL STOCK
9 3 %
FLYING RANGE
THRUST
OPEN
EMPTY
DETACHMENT
ASM 17
AAM 6
REPAIR 27.7 HR
SPD 110
RNG 1254
1 0 0 %
HALF
FULL
INTREPID
SUDDEN STRIKE

SKYFALL

HIGHFLEET is a frustrating mess and an impending cult hit

by Rowan Kaiser

H*ighFleet*, is a far-future action-strategy game involving airships fighting a civil war during the death of an empire. It all feels like it's the product of a singular vision, consistently styled and with systems that all seem to fit together and channel players into its mindset. Under most circumstances, this is the kind of game I'd happily recommend as unique and exciting. There's just one small problem: I hate this game.

The narrative of what you do in *HighFleet* sounds mesmerising. You negotiate with local warlords for alliances! Crack codes! Design new ships! Fly them around in intense combat, dodging bullets and launching missiles! All presented as their own little minigame or mechanic. It's also cleverly put together, with an interface that has you accessing the different parts of the game experience through the window of your flagship.

The core problem with *HighFleet* is that it's filled with minigames, and every minigame has frustrating obstacles. There's a whole system for launching stealth attacks, but I can barely even see how or why that matters. Some of this is down to a poor tutorial, where you're taught things you can do without learning what's possible and why, but it takes too long to get better.

Take combat as an example: you can have several ships, but you only actually control one at a time, in a twin-stick shooter-style piece of air combat. Combat looks and feels great. There's weather effects, including raindrops hitting the screen and darkening proceedings, wailing music to fit the vibe of the game, and booming gunshots. Controlling the ships is a constant tug-of-war with gravity, and reload times and ship damage are just on the edge of difficult and frustrating.

> **Controlling the ships is a constant tug-of-war with gravity**

HUH? WHAT?

The problem is everything else associated with combat. There's a massive dearth of information about what combat actually means. Is it OK to lose ships? *HighFleet* doesn't really have an answer until you've achieved some level of competence and expertise. Ships have crews which can be saved if you're losing the ship, and you'll get a marker of how many of them were saved at the end of a fight, but not what crews actually do.

The strategic level of dealing with combat is off-putting as well. *HighFleet* provides a tutorial for how to launch ships away from your fleet to fight on their own, but either I lost most of the ones I sent off or I couldn't figure out how to call them back. And then there's the nightmare of landing ships in specific docking areas for slight repair advantages.

In other words, I feel like I never had any idea whether I did well, well enough, or disastrously in any given combat. After every combat I have to decide, without strategic context, whether I need to try this again, which triggers frustration.

Under most circumstances, this would still be something I could work through – with experimental games like this, there's an expectation that there will be moments of confusion as you try to unpack its complexities. But there's one other tiny problem: *HighFleet* is hard, or at least feels hard, and more importantly, it doesn't have any kind of difficulty settings. It's a simple, vicious cycle of fighting, replaying fights, becoming frustrated, and then finding more fights to lose.

You might have the patience to puzzle out these systems. The clever interface and appealing style may bring you in and inspire you to figure out what each part of it means. Maybe you're a twin-stick jockey, and combat makes perfect sense to you. There are lots of components that could appeal to the imaginary player in my head... but that player isn't me. The me who played this game cannot wait to be done with it. ■

NEED TO KNOW

WHAT IS IT?
A complicated action-strategy hybrid with gravity defying behemoths

EXPECT TO PAY
£23.80

DEVELOPER
Konstantin Koshutin

PUBLISHER
Microprose

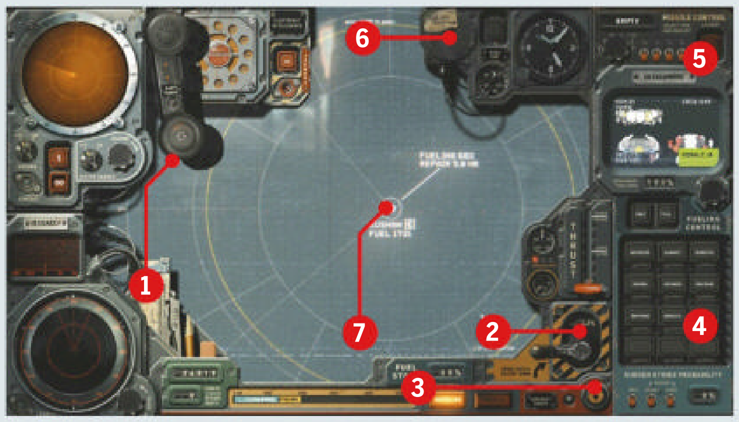
REVIEWED ON
AMD Ryzen 5 2600, NVIDIA GeForce RTX 2080

MULTIPLAYER
No

LINK
bit.ly/3B1nUBh

HIGHFLEET'S DIEGETIC INTERFACE

There's a lot of buttons on your carrier's command screen – here's what they do



1 Tug on the telephone when a message can be intercepted and you'll get a set of dials to turn to start breaking codes.

2 Open the hatch to send out your ships for combat, and land in cities.

3 Pulls up another interface for launching planes.

4 Here's where you select your ships for sneak attacks.

5 Missiles? Yes sure why not, there are also missiles!

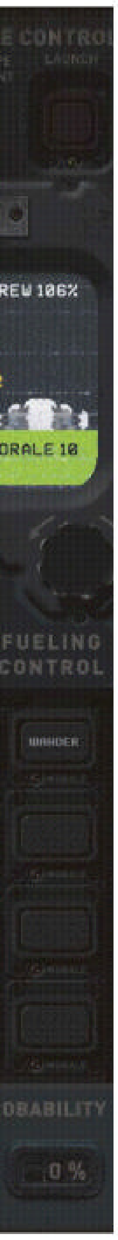
6 The SOS button.

7 The actual map, where you move and enemy information is documented.

PC GAMER VERDICT

59

***HighFleet* has appealing vision, but breaks down due to opaque systems and lack of difficulty options.**



PAINT IT BLACK

WARHAMMER 40,000: BATTLESECTOR gives space marines some personality

By Jody Macgregor

W*arhammer 40,000: Battlesector* is the latest attempt at putting some of the scale of tabletop 40K onto our screens. Which is to say, it's another turn-based tactics game about the Space Marines. But rather than generic armoured lummoxes it features one of the more interesting flavours: Blood Angels, the marines you get into if you watched too many horror movies when you were young.

Blood Angels suffer from Red Thirst, making them literally and figuratively bloodthirsty. In *Battlesector* this means they get more momentum points, which are normally earned for kills, the closer they are to their enemies – the enemies in this game being the dinobug alien Tyranids. When a unit gets 100 momentum they 'surge', getting a movement bonus and the option to trade in those points for an extra action or a single empowered use of an ability, which turn powerful attacks devastating.

> It's a vivid portrayal of manly but doomed space vampires

Non-marines earn bonus momentum in ways that play up their personality too. The hive-minded Tyranids need one of their queen-bee synaptic leaders within range, encouraging them to move in clustered swarms. You also unlock a few units of S&M nuns called Sisters of Battle in the campaign, who earn momentum for taking damage as well as dealing it.

It's tempting to play it safe, to go into overwatch on every turn. *Battlesector* drops into slow-motion during overwatch so you can see every shot go off and all the numbers flying out to emphasise it. But activating overwatch costs valuable momentum, pushing you to instead commit to risky advances, getting your commander with the jump pack and thunder hammer leaping into hand-to-hand combat with some monster that gives birth to swarms of smaller enemies or vomits acid.

The Blood Angels' curse is double-pronged. As well as the Red Thirst there's the rarer Black Rage. Those it descends on spiral toward a berserk state that'll eventually kill them. They paint their armour black and form a separate unit, a Death Company that takes on dangerous missions in the hope they'll die doing something valiant. The first time you see a Death Company in the campaign, they're engaged in a fight that's been going for days, swinging chainswords in a river of blood. Your bonus objective in this mission is to help five of their units die.

WARHAMMER TIME

In moments like this, *Battlesector* is goth as hell. Did I mention it's set on a moon covered in ruined cathedrals, red deserts and factories whose main item of production is apparently giant statues holding goblets shaped like skulls? Between missions your HQ units narrate poetically, saying things like, "On this hallowed ground, every one of us fought with tooth and bloody nail for the chance to become angels." It's a vivid portrayal of manly but doomed space vampires.

Battlesector also introduces Primaris marines, a variant even more genetically bulked-up than the originals. Though the campaign's opening act is ostensibly about the old firstborn marines making peace with their replacements, the Primaris don't get a voice between missions. I ended up feeling distant from the larger plot, and the troops. It doesn't help that there's no progression system for units – HQ characters earn skills, but squads stay the same, drawn from a bottomless pool up to the point limit for a given mission. I want soldiers to feel like 'my guys' over the course of a campaign, but that never happened.

There's so much character in the rest of the game, it's odd to find parts where it's missing. The Blood Angels lend themselves to a progression system, veteran units getting tougher but potentially succumbing to the Black Rage each time they're used. In *Battlesector* the Death Company's just an option you select if you've got points left over during deployment.

On that level, it didn't quite land. *Battlesector* is best when it's about tactical play, whether it's encouraging you to make the most of its momentum rules, or to space units so they shoot from their most effective range, or to respond to venomthropes who fart poison into the ground by sending in tanks who don't give a damn about it. ■

NEED TO KNOW

WHAT IS IT?
Battle-scale turn-based tactics in the 41st millennium

EXPECT TO PAY
£32

DEVELOPER
Black Lab Games

PUBLISHER
Slitherine

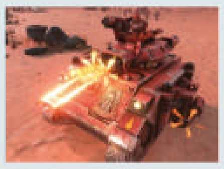
REVIEWED ON
Windows 10, Intel Core i7, 16GB RAM, Nvidia GTX 1060

MULTIPLAYER
Two-player online, hot-seat, PBEM

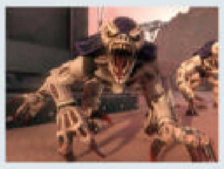
LINK
bit.ly/3fDMAHz

TOY SOLDIERS

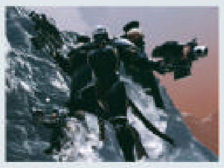
Battlesector's 40K models are better-painted than mine



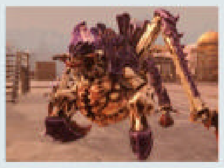
BAAL PREDATOR
Even the Blood Angels' battle tanks are equipped with close-range weapons.



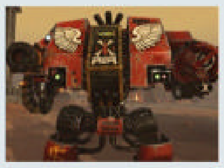
GENESTEALER
Relive all the fun of being murdered by these guys in *Space Hulk* one more time in *Battlesector*.



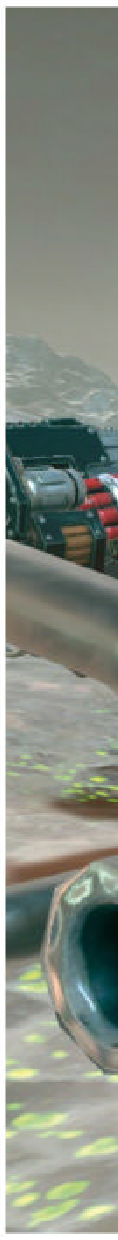
SERAPHIM
The Sisters of Battle enjoy cosplaying as angels as much as space marines do.



TERVIGON
A walking incubator that gives birth to live young, who then eat you.



DREADNOUGHT
Heavily injured marines transferred into mechanical bodies to fight on.

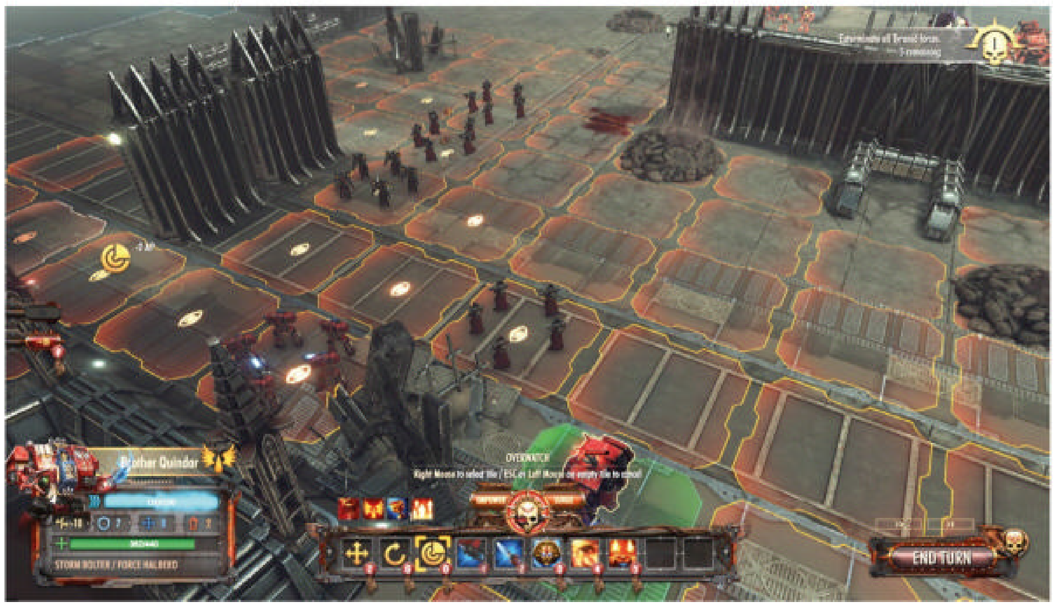


PC GAMER VERDICT

74

Warhammer 40,000: Battlesector is a characterful strategy game that could have gone a little further.

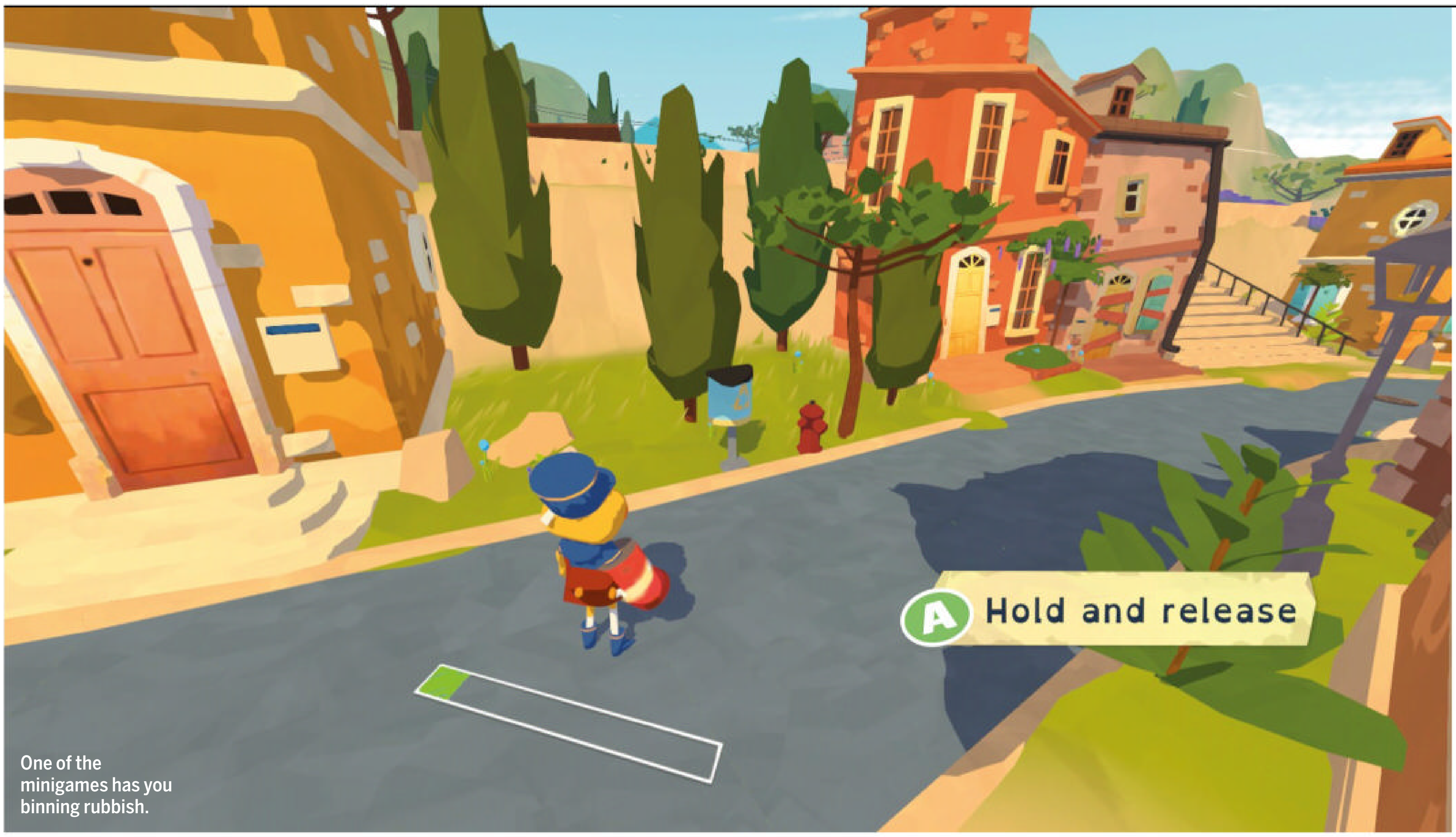
Empowering the psyker's abilities turns him into a potent destructive force.


Brother Quindar
STORM BOLTER / FORCE HALBERD
OVERWATCH
END TURN

FAR LEFT: Choosing an angle for overwatch, represented by a cone of eyes.

LEFT: This guy's a walking artillery piece, and terrifying.

The primaris marines are bigger, which means bigger guns.



One of the minigames has you binning rubbish.

POST NO BILLS

Having a jolly holiday with parcels in POSTBIRD IN PROVENCE

There's perhaps 1/5th of a cult hit in *Postbird in Provence*, a game about delivering mail around a picturesque French village. Despite being a bird – creatures that notably have wings – you deliver packages by bicycle, pootling through the narrow streets, skidding round corners and hurtling up ramps like Evel Kn'eagle, and fingers crossed I get away with that terrible pun.

I say '1/5th' because, like so many free games, *Postbird* is very short. Just as I was finishing what I thought was the tutorial – consisting of just a few deliveries to a clutch of villagers – the game unexpectedly wrapped up. Thankfully, you can load your save file and continue exploring, and you should, because it's like being on holiday.

Admittedly it's less of a holiday if you actually live in Provence, but the best thing about *Postbird* is being in its endlessly sunny world. It's a vivid and painterly setting, and a joy to barrel around on your bike. But you can also hop off to grab a collectible, take part in a minigame, or – when you're not too distracted – deliver the mail.

There's some (very light) puzzling to the postal delivery, as apparently people in Provence don't write names on their packages. They instead put a little sticker that tells you something about the recipient – a sticker you have to match with the appropriate icon on the map. I did get this wrong a couple of times, by trying to deliver to the wrong person, but I do wish a bit more detective work was involved. The (correct) recipients reward you with a few lines of funny dialogue, and then you're on your bike to courier the next parcel.

> **There's a journal that fills in with every person you meet**

The 'post' part of *Postbird* might be awkwardly curtailed, but there's incentive to stick around after the credits. There's a journal that fills in with every person you meet, every scenic viewpoint you snap, every collectible stamp you happen across in the town. I'm not too bothered with collectibles these days, but I found it satisfying, here, to fill in the journal's blank spaces. Part of that is down to *Postbird*'s less intimidating scale, but it's also because these actions enrich the world.

NEED TO KNOW

WHAT IS IT?
A game about postal delivery in a beautiful French village

EXPECT TO PAY
Free

DEVELOPER
ISART DIGITAL students

PUBLISHER
In-house

REVIEWED ON
Intel Core i7-10750H, 16GB RAM, GeForce RTX 2060

MULTIPLAYER
None

LINK
bit.ly/postbird

CROSSNUT

Taking pictures allows you to appreciate the town from new angles, while punting litter into bins obviously makes it a slightly more attractive place. There's a touch of *The Legend of Zelda: The Wind Waker* to *Postbird*'s coastal do-gooding – only a touch, mind you, but it's there.

Obviously, for the price of free, this is worth a look if *Wind Waker* speaks to you. Just be prepared for the sudden cliff-edge when you begin to settle into village life. There's no need to worry though: I've written a very polite letter asking the developer to make a follow-up, and dispatched it via a ferret wearing rollerblades. ■

PC GAMER VERDICT

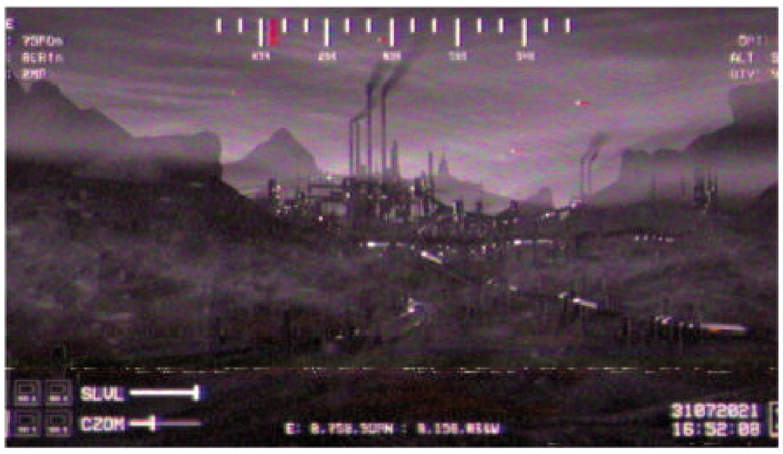
You'll curse the brief running time, but enjoy every minute of *Postbird in Provence*'s cheery jaunt to France.

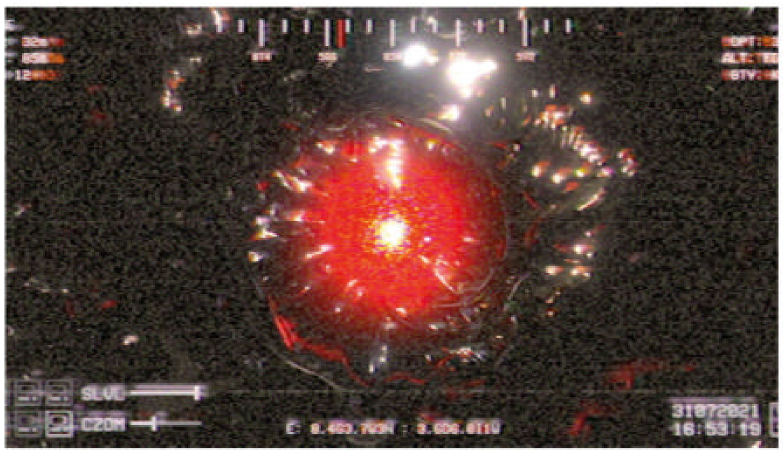
82

ALIENATION

NODOMUS opens a window to cosmic horror

BELOW: This factory scene is the most recognisable.





NEED TO KNOW

EXPECT TO PAY	DEVELOPER	PUBLISHER
Free	Colorfiction	In-house

Colorfiction makes games that transport you to another time and place. For instance, *Becalm* is a boat ride, while *Nightline* evokes a city subway. They're walking simulators, I suppose – sometimes without any actual walking – instead allowing you to *be*, as the city passes around you, or the water laps reassuringly at your sailboat.

Nodomus is going for an emotion other than serenity or quiet urban contentment. Awe, perhaps. And with a splodge of horror thrown in too. This time, rather than being somewhere from a first-person perspective, you're viewing the camera feeds of several drones, which are fixated on some possibly dreadful event. You can't move the drones, but you can zoom in and out, and turn the volume up and down.

My best guess is we're watching an alien entity fight a winning battle against humanity – we have a ringside seat as it attacks a factory and, possibly, a spaceship. The feeds are plagued by convincing video effects including flickering and constant static. But this obfuscation is what makes the game so compelling. If you're anything like me, you'll flick back and forth, back and forth between the camera feeds, trying to work out what it is you're seeing exactly. Zooming into the heart of the creature and being greeted by an ominous, rippling eye. Or finding yourself in an endless kaleidoscope of alien tendrils – possibly the creature's interior? *Nodomus* offers a window onto a frighteningly alien cosmic entity. You'll come away none the wiser, but it's fascinating to witness all the same. ■

80

TV FOR VENDETTA

Shooting conspiracies to death in **KILLSPIRACY TV**

I probably spend most of my time with retro-styled shooters being distracted by the pixel art: appreciating the cardboard-thin enemy sprites, and textures that (hopefully) warp when you get up close. The illusion is difficult to conjure, and all too easy to break, but *Killspiracy TV* feels pretty authentic to first-person shooters of the late '90s, even as it ditches their typical level design for procedural mazes.

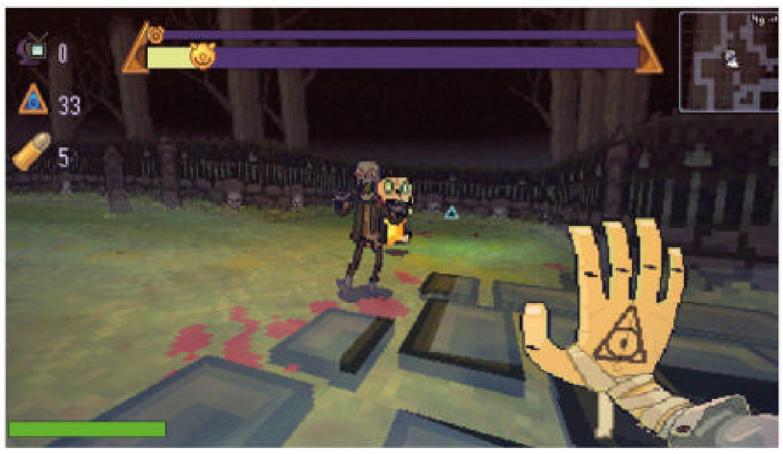
In each, your goal is to rescue a bunch of cultists – cowl-wearing types with televisions for heads – before hoofing it back to the entrance portal, if you can find it. I like the outlandish enemy and weapon designs, and the stages themed around graveyards, pyramids and other atmospheric settings. There are some impressive visual effects, including a low-poly mist I could stare at all day. But I spent much of the game lost, trudging between samey corridors. Cultists initially appear as twinkling guiding lights in the distance, but the game offers no such help when you're trying to stumble your way back.

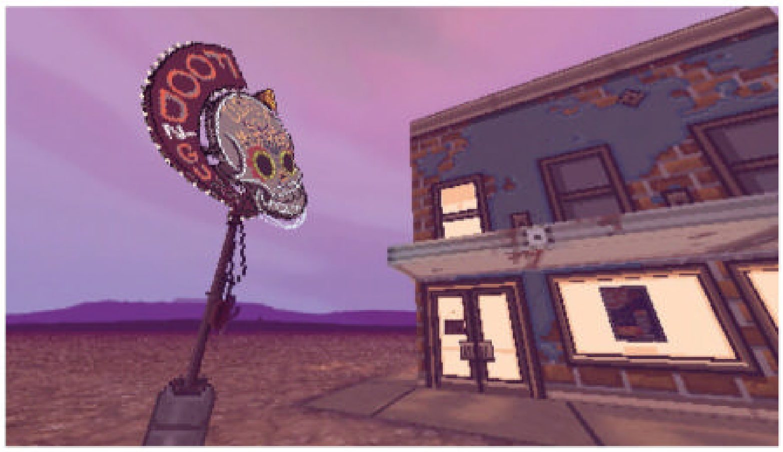
There are some neat ideas here, including a playable menu screen that plonks you in the middle of the desert, and enemies that punish you for wasting time, by spawning in waves. Sadly, the shooting is disappointing, as the guns feel pretty puny to wield, with about as much aural oomph as water pistols. Every shooter should have an answer to *Doom*'s devastating shotgun, but you're mostly flinging weedy sigils and explosives here.

Killspiracy TV feels garish in an enjoyably '90s way. ■

70

BOTTOM: The game begins here. It's one hell of a menu screen.

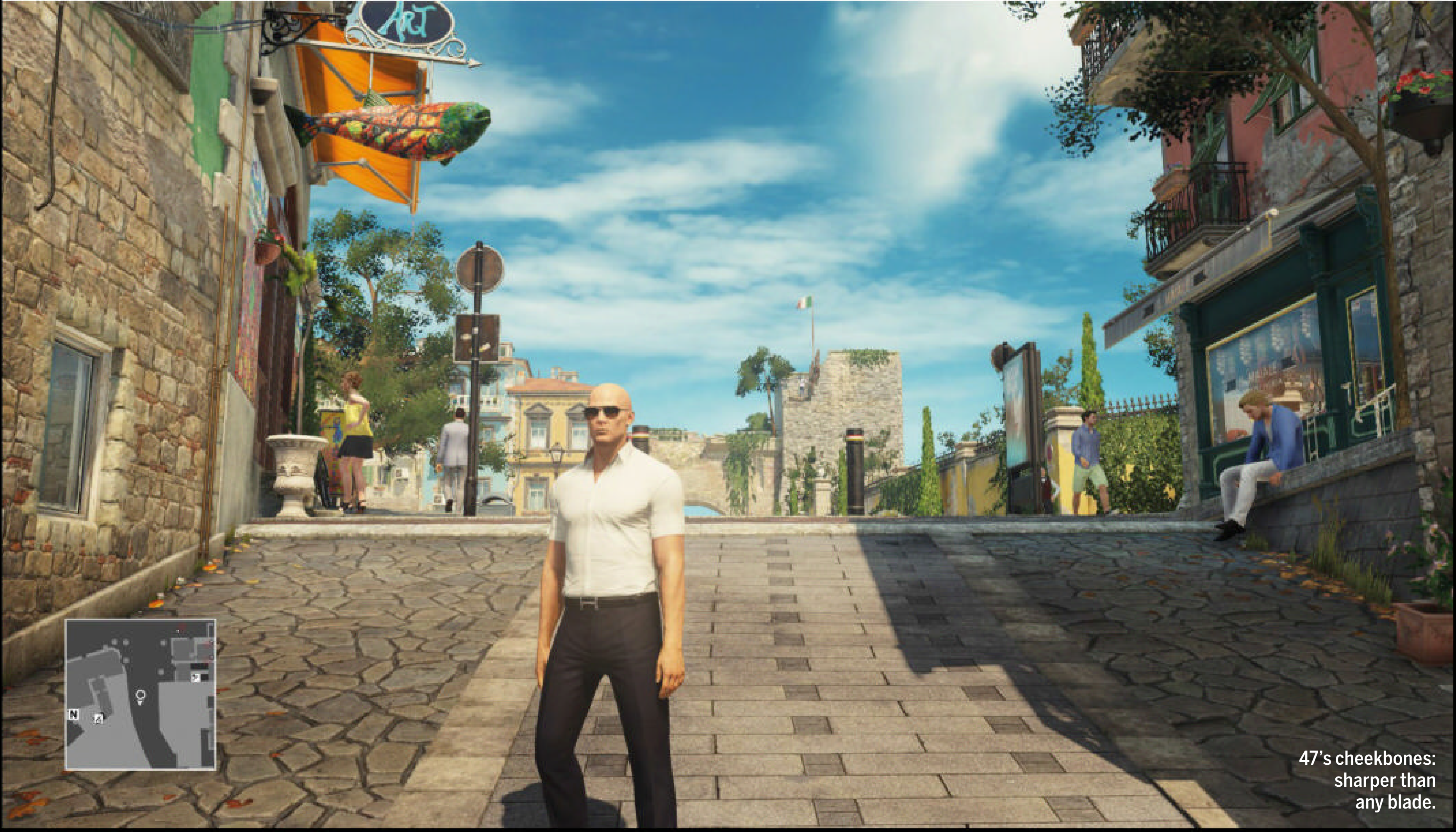




NEED TO KNOW

EXPECT TO PAY	DEVELOPER	PUBLISHER
Free	Sonicrumpets	In-house

OLD GAMES REVISITED by Matthew Elliott



47's cheekbones: sharper than any blade.

SMOOTH OPERATOR

Killing time rather than targets in HITMAN

Going back to an old game is like waking up on New Year's Day. You erupt out of bed with fresh drive and purpose. Then you realise it's March and you've spent three months watching the same video about cranial nerve examinations instead of Unity tutorials and the only book you've read is about vegetables that look like celebrities.

This is the thought that occurs to me as I try, for the second or third time, to kill a man by flushing his head down the bog. You always go into *Hitman* predicting a degree of efficiency. You expect to sashay your objectives and escape while your target's body is still warm. But *Hitman* is a dark temptress, beckoning you off course with a come-hither hammer or seductively turned box of emetic rat poison. Why do it the simple, sensible way when you can spend 15 minutes waiting for someone to walk under a perfectly poised speaker? These are bad people and they deserve to die in the most embarrassing manner conceivable.

It's compounded by the fact this is a re-review. It would be nice to quickly move past the stuff I've previously done, but not doing that is exactly what makes *Hitman* so much fun. I can kill an hour on a pretend boat trying to explode my target in a way that reduces the entire enterprise to a farty, slapstick comedy. Even doing exactly what I'm supposed to with ruthless directness is something that remains compelling. The replayability can be paralysing.

> **It's still possible to lose hours faffing about in its homicidal toybox**

This is perhaps the problem caused by the sheer density of the levels. Paris, for example, is so crammed with vicious possibilities it's still possible to lose hours faffing about in its homicidal toybox. It also means it's more pleasant to go back to – like visiting the family holiday home, albeit one where foggy games of Cluedo are replaced with smashed billionaires. How did Viktor Novikov die? It was Agent 47, on the balcony, with the plummeting body of Dalia Margolis.

HIT IT ON THE HEAD

All this means it takes me ages to get anywhere, and the less familiar levels don't elicit the same sense of predatory nostalgia. *Hitman* is a game that feels great to play when you're doing well and deeply frustrating when you're not. It also requires an incredible degree of patience, lest you get spotted by some guard who turns around at exactly the wrong moment. The generous manual save system does provide a safety net for the game's challenges, but it feels like it's against the spirit of things – like someone in a film stopping a fight because they've lost a contact lens. It almost makes it a genre apart: not so much a stealth game as a deadly Rube Goldberg puzzle in which you exist to arrange the pieces. ■

NEED TO KNOW

WHAT IS IT?
Mouse Trap with heart attacks, hammer violence, and exploding golf carts

EXPECT TO PAY
£42.50

DEVELOPER
IO Interactive A/S

PUBLISHER
In-house

REVIEWED ON
Intel Core i7-7700 CUP @ 3.60GHz, 16 GB RAM, NVIDIA GeForce GTX 1070, Windows 10

MULTIPLAYER
No

LINK
store.steampowered.com/app/236870/HITMAN/

PC GAMER VERDICT

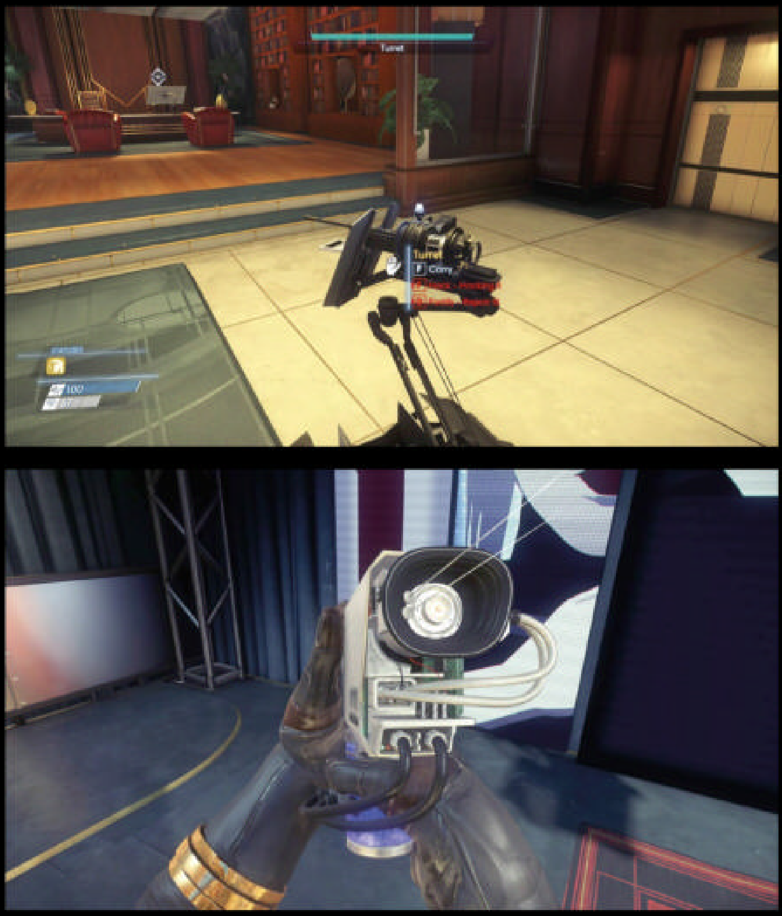
I killed a man with a hippo, so I did. Which obviously means that IO Interactive's *Hitman* is an excellent game.

84

BUG HUNT

Unexpecting the unexpected in PREY

BELOW: This turret is my only friend and it's coming everywhere.



NEED TO KNOW

EXPECT TO PAY	DEVELOPER	PUBLISHER
£25	Arkane Studios	Bethesda Softworks

A 2011 study by psychologists Jonathan D Leavitt and Nicholas J S Christenfeld of the University of California showed that humans don't actually like surprises. Each group read three mystery stories. Some had the twists ruined, others went in cold. Across all conditions, people enjoyed the spoiled stories the most. And that's perhaps why *Prey* is such a nerve-shredding experience. There's only so many times a bar stool can turn into a scurrying intergalactic meat-spider before you stop going 'oooh, you got me!' and start gobbling Xanax.

There are few other reasons *Prey*'s constant state of unseen threat is troubling. Firstly and most damningly, the combat is slightly unsatisfying. If I want to effectively waft a wrench around I'll stop writing and become a car mechanic. The speed and surprise of the enemies in *Prey*, combined with the airy lack of melee crunch, means that I sometimes feel more like I'm trying to encourage a bluebottle out of a bedroom window than fight aliens in space. It's open-ended enough that you can just sneak past everything but combat generally feels like a notable failing. Worse still, in my experience, are the unintentional bugs. For whatever reason, this otherwise incredible game is deeply unhappy on my PC. I disappear into my suit when I duck. My wrench phases out of existence. And the lag can be crippling.

Yet despite the stumbles and variety of unwanted surprises, *Prey* is still staggering. The fact that it's good enough to play around with despite its failings says a lot. ■

75

DEAD RISING 2

You have to feel sorry for Chuck Greene. It's bad enough that he looks like the reflection of an Easter Island statue on the back of a spoon and his daughter is a probably-zombie. But then Case West comes along and retcons him from his own game. That's like spending ages reviewing a game, only for some berk to shamble up years later and change your scor... oh.

Yes. Lack of Frankness aside, *Dead Rising 2* is an absolute riot. Working against the clock is still a thing, but there are fewer of the maddening frustrations that damaged the first game. Plus, among many other things, you can dress up in a hula dress and blend zombie heads with a murder bucket. ■

79

COSTUME QUEST

There's always one game in these lists that removes all doubt when it comes to the theme. This time: disguises. It's also a month-appropriate game, because Halloween waddles toward us like an insulin-resistant child in a pirate outfit. *Costume Quest* is the warmest, most autumnal slice of American seasonality you can play on PC. And if it feels like a Pixar spin-off, there's a good reason: director Tasha Sounart worked there for years before joining DoubleFine, then returned to become associate creative director of theme parks, a job title so nice it sounds like it was made as a reward at the end of a Muppets movie. And it's likely why *Costume Quest* feels like a cosy ghost train. ■

70

Charlie lives inside you now.

STACKING

Two DoubleFine games in one list feels like cheating, but *Stacking* puts such a dark twist on dressing up it's impossible to resist. I like to imagine a world where little Charlie Blackmore isn't a matryoshka doll, but a real boy who, in an attempt to save his family, dons the skins of his enemies. Does it hurt when Charlie wears you like a hazmat suit, you ask? Yes. It's excruciating. Buffalo Bill analogies aside, *Stacking* is a piece of gently compelling Victoriana with some pleasantly distracting puzzles. ■

73

WIN THE KINGDOM, OR TEAR IT DOWN!

OUT NOW!

Classic GTA-gameplay gets a medieval makeover. The Great Tournament is offering the hand of the princess as a prize. Go from local brigand to champion. Or don't.

Guy (that's you) and his friend (conveniently named Buddy) are out to win the prize with holy hand grenades, pimped out horses, and their own personal minstrels in tow. It's madness and mayhem with true comedic flair.

XBOX
XBOX SERIES X • XBOX ONE
PS5
PS4
NINTENDO SWITCH
Rustler
18

Commit Grand **Theft Horse**

Explore a Historically Inaccurate **Sandbox**

Live the Medieval **Ruffian Life**

MODUS JUTSU GAMES GAMES OPERATORS

STEAM PS5 | PS4 XBOX SERIES X XBOX ONE NINTENDO SWITCH

18 www.pegi.info

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HARDWARE

GET THE PC ES DESERVE

96

GROUP TEST

Find your perfect webcam today.

102

BUYER'S GUIDE

Three expert builds to help you create your perfect PC.

100

TECH REPORT

How do you mine cryptocurrency with a volcano?

GROUP TEST

PC WEBCAMS

Take a peek into the wonderful world of webcams. *By Katie Wickens*

2
1080p / 60fps
logi

Sure, you could stick to making TikTok videos on your phone, but if you're serious about making a professional impression on the web, a quality webcam could be your first step toward internet fame and fortune. In fact, a world without webcams doesn't bear thinking about.

Without them, the well-loved world of Vloggers and Twitch streamers would be all but diminished, along with your chance to make a name for yourself as an internet personality.

If that thought has you excited, or if you just need to appear less pixelated, or prove you're out of bed in online meetings, it's time to have your face witnessed by a crystal-clear, high-definition webcam.

The main considerations in choosing a camera are image quality, ease of use, software utility, and whether the built-in microphone is any good.

1
Elgato Prime Lens 1080p60 24mm 1:2.4

Facecam

ELGATO **£190**

Sensational, speedy streaming and easy setup

1 This is Elgato's first ever webcam, and it took the web by storm. In fact, it turned out to be every streamer's dream. The Facecam delivers superb picture quality, couched by easy to understand software that lets you adjust your contrast, exposure, and FoV on the fly. And all that goes into a totally uncompressed 1080p video stream, shot at a swift 60fps.

Sure, it's not the highest definition camera out there, but who needs 4K resolution when you've been granted such an easy set up and picture quality to rival that of the Logitech StreamCam. Having knocked it off the top spot in our eyes, the Elgato Facecam has taken the crown among streaming-focused webcams.

OK, so it may be a little on the expensive side for a 1080p webcam, but it's worth every penny to take your streaming to the next level. If it's an effortless set up, badass image quality, and high frame rate you're looking for, then the Elgato Facecam is the cam… for your face.

PC GAMER VERDICT

- → Fixed focus
- → Great software
- → Uncompressed 1080p video

SPECS DISPLAY RESOLUTION: 1080P@60FPS / **FOV:** 83.2 DEGREES / **SPECIAL FEATURES:** CAMERA HUB APP

StreamCam

LOGITECH **£111**

Versatile command over content creation

2 With the flexibility to switch between landscape and portrait mode in the blink of a shutter, the StreamCam puts versatile content creation at the heart of its design. You can record something meant for scrolling on a phone screen, then quickly flick back to a standard landscape format. And being a smart cam, it takes the stress out of manually focusing when you're constantly faffing around with your setup.

Recording in 1080p resolution at 60fps means you can capture silky smooth footage. Even in low lighting conditions, the StreamCam's focus remains consistent and the picture quality hangs in there, regardless of what the lighting setup happens to be. Plus there's a cool app to go with it.

The only real drawback, aside from it being a bit on the expensive side, is the short cable that comes with it. Don't expect to be setting up your camera too far away from your PC unless you have a spare USB Type-C cable lying around the house.

PC GAMER VERDICT

- → Great picture quality
- → Excellent face tracking
- → Works well in low-lighting conditions

SPECS DISPLAY RESOLUTION: 1080P@60FPS / **FOV:** 73 DEGREES / **SPECIAL FEATURES:** PORTRAIT ROTATION

WITH PERFECT WHITE BALANCE AND SATURATION, THERE'S LITTLE TO COMPLAIN ABOUT HERE

Brio

LOGITECH **£200**

Brilliant 4K shots, with some faff

3 There's a reason there are so many Logitech cams on this list: the company sure knows how to make a webcam. Where it's fallen down here, however, is with a buggy autofocus and some minor auto-contrast issues. Still, with a bit of manual tweaking, that doesn't detract from the Brio's brilliant resolution options, great field of view and fantastic image quality.

The cam's low light performance is great, and even with really very little light there's not a tremendous amount of noise. With perfect white balance and saturation, there's little to complain about here. It's even got an infrared sensor, meaning it works with Microsoft's facial sign-in feature, Windows Hello.

Despite all this, there's still not a huge demand for 4K cams. I'm sure this is owing in part to the recent awkwardness in acquiring components that can handle such high resolutions. Still, with HDR compatibility and great image quality, this is a great choice for those whose PCs can handle it.

PC GAMER VERDICT

- → Superb image quality
- → Supports HDR recording
- → Dodgy auto contrast

SPECS DISPLAY RESOLUTION: 4K @ 30FPS, 1080P @ 60FPS, 720P @ 90FPS / **FOV:** 90 DEGREES / **SPECIAL FEATURES:** WINDOWS HELLO COMPATIBLE, HDR-ENABLED, 5X DIGITAL ZOOM

Kiyo Pro

RAZER **£180**

Low-light champion with a colourful twist

4 At the top end comes the Razer Kiyo Pro. A little on the expensive side, but with plenty of great features to make up for it. Here, you get sensational sharpness and great white balance. Paired with exceptional colour saturation, the Kiyo Pro really puts the others you see here to shame in bright light. And although in low light it can get a little washed out, the onboard ring light helps deal with the worst of it.

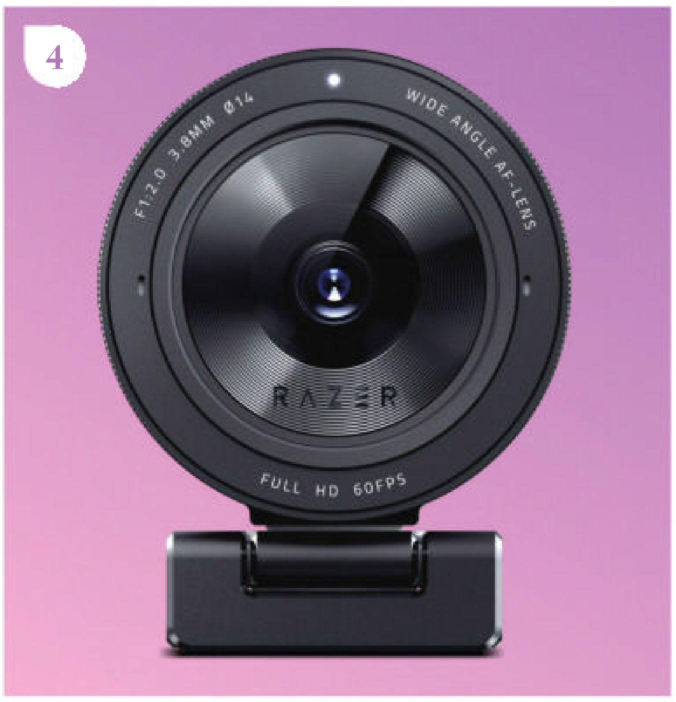
Even in the pitch blackness of a midnight streaming lair, however, the Kiyo Pro manages to produce a great image. Its adaptive light sensor means no matter what lighting conditions you find yourself in, this cam should be able to make it work.

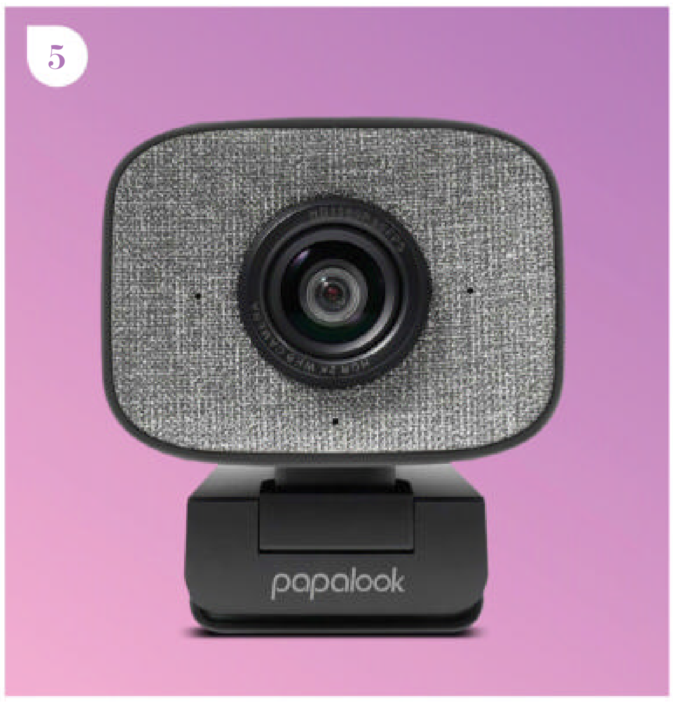
The versatility of the Kiyo Pro's field of view is also pretty nifty, but at wider angles it does produce a slight fish-eye effect. For some, perhaps the surrealists among us, this may be exactly what you want. For the majority of users though, the standard 90 degrees should be more than enough.

PC GAMER VERDICT

- → Ring light makes up for low light
- → Natural saturation boost is great
- → No driver software

SPECS DISPLAY RESOLUTION: 1080P @ 60FPS / **FOV:** 80, 90, 103 DEGREES / **SPECIAL FEATURES:** OMNIDIRECTIONAL MICROPHONES, ADAPTIVE LIGHT SENSOR, HDR-ENABLED





HD 1080p
logi
6

LIGHTING TIPS TO IMPROVE ANY WEBCAM SHOT

The first step to improving your video quality is fixing the lighting. Regardless of how spectacular the webcam, a badly lit studio could negate some of that technological advantage. Start off by dimming harsh back-lighting. Think of how environment artists draw your attention to quest items: a bright background will detract from the focal point.

Then grab a desk lamp and either point it at a white surface behind your monitor for some soft bounce light, or strap some white paper to it to diffuse the light. Either will reduce shiny spots on your face, but the latter provides more control. Then just reduce your screen brightness, particularly if you wear glasses, and adjust the webcam's white and colour balance until you look vaguely human.

PA930

PAPALOOK **£65**

An affordable, no hassle QHD alternative

5 The Papalook is not a webcam you're going to want to reference out loud, if only because of its unfortunate name. It is a capable 1440p webcam for an affordable price, though. That's a small win in my books, if only because the past year it has been dreadfully difficult to get your hands on anything close to a reasonably priced webcam.

The Papalook offers a perfectly adequate picture quality out of the box. It's bright enough that you won't necessarily want to fiddle with the settings right away, and it's surprisingly decent in low-light conditions. It is, however, let down by poor software, which unfortunately can limit some of its functionality. With an included privacy cover and sturdy stand, the Papalook offers an okay alternative to more pricier webcams on this list. If you only want to beam your face across the internet, it can do just that with little fuss. Just don't expect it to be a match for more high-end units – I'd recommend the C922 over the PA930 any day.

PC GAMER VERDICT

→ Affordable alternative
→ Ready to go out of the box
→ Lacking features and functionality

SPECS DISPLAY RESOLUTION: 1440P @ 30FPS / **FOV:** 90 DEGREES / **SPECIAL FEATURES:** DUAL MICS, PRIVACY COVER

C922 HD Pro

LOGITECH **£68**

A standard, stalwart little webcam

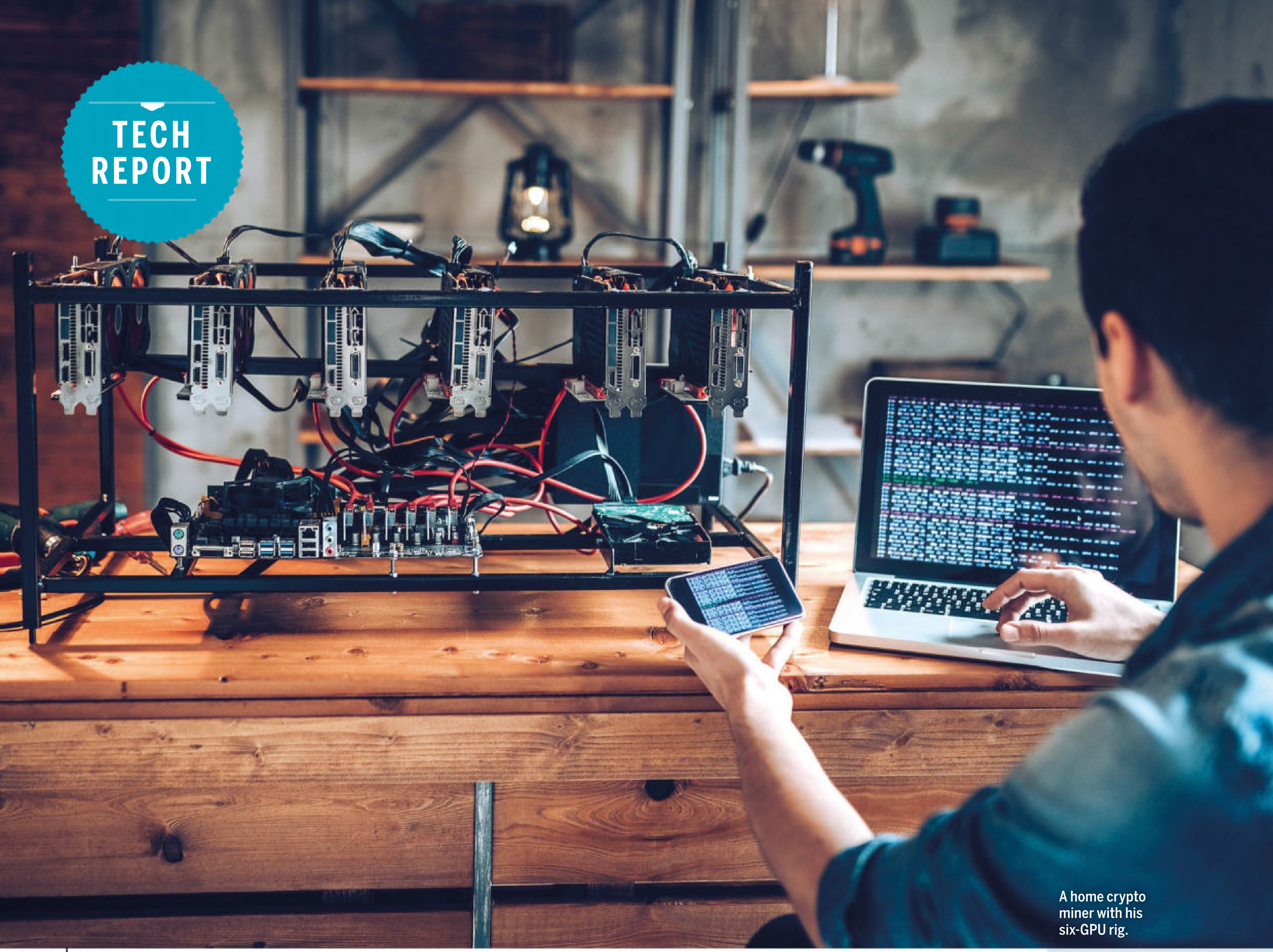
6 Here we have the middling model, the one most people can appreciate. The Logitech C922 HD Pro comes in at a good price to performance ratio and unless you need something very specific from your webcam, this may be the best everyday solution. The camera's noise levels stay at a respectable level when confronted by dimmed lighting conditions, meaning the low light performance is pretty great. In bright light however, although the 1080p image comes out looking quite sharp, the default saturation can make it look a little washed out. So some adjustments may be needed to make the most of the C922 HD Pro.

Still, the software and Logitech's Camera App make the cam pretty versatile, and there's great compatibility with the ChromaCam background replacement app, to boot. As the cheapest one on the list, with an alright field of view, fantastic autofocus and great picture quality, this is a really good starter buy.

PC GAMER VERDICT

→ Great picture quality
→ Affordable
→ Limited to 30fps

SPECS DISPLAY RESOLUTION: 1080P @ 30FPS / **FOV:** 90 DEGREES / **SPECIAL FEATURES:** DUAL MICS



A home crypto miner with his six-GPU rig.

TALES FROM THE CRYPTO

Environmentally-friendly power for CRYPTO MINING is becoming a big issue

With the expert timing exhibited by all great comedians, we wrote in these pages earlier this year about cryptocurrency mining and encryption, only for the whole crypto landscape to suddenly change.

At a time when Norton is launching crypto-mining antivirus software, Nvidia has taken steps to reduce the mining hashrates of its latest gaming GPUs, and yet crypto prices remain high, and low, and high again. It can sometimes feel that trying to keep up with this sector of the tech market is an impossible task. Not only does it move fast, but it can surprise you with every new twist and turn. Especially where its environmental viability is concerned.

Enter the president of El Salvador, a tiny Central American country with an area ever so slightly greater than that of Wales (but twice the population). It doesn't trouble the pages of PC Gamer too often, but it has taken a very interesting position on cryptocurrencies: rather than recoil from them in the manner of a cat discovering that the electric hob is, in fact, switched on, it has chosen to embrace the digital beer tokens with much enthusiasm.

Enthusiasm, and a volcano. Along with becoming the first country in the world to make bitcoin legal tender (El Salvador doesn't have its own currency, instead using the US Dollar, which is interesting but doesn't involve volcanoes) the president of El Salvador, Nayib Bukele, also announced the creation of a plan to offer bitcoin mining facilities using renewable energy from the country's volcanoes via state-owned energy firm LaGeo, neatly side-stepping the accusations that bitcoin mining is bad for the environment.

All of this was helped immensely by Bukele having as his Twitter profile picture at the time of the announcement a (we assume) doctored image portraying him with glowing blue eyes and looking rather like Nicholas Cage would if he played him in a blockbuster biopic with added lasers.

"It will bring financial inclusion, investment, tourism, innovation, and economic development for our country," Bukele said in a tweet shortly before the vote in Congress, which passed the bill 62 to 12. His government will guarantee the convertibility of bitcoin to dollars, but the rate will be set by the market. Bitcoin rose 6% on the news.

Bukele said in a follow-up tweet that LaGeo's engineers had already dug a new well capable of providing "approximately 95MW of 100% clean, zero-emission

Miner issue

As the price of cryptocurrency rises, new miners are attracted to doing it, and using less efficient equipment becomes more profitable. Cambridge University figures suggest 75% of miners are using some form of renewable energy, but renewables still account for less than 40% of the energy used.

Image credit: Security Service of Ukraine

FAR LEFT: A local resident working at a cryptocurrency farm in Dujiangyan in China's southwestern Sichuan province.

LEFT: Some of the electrical equipment, including racks of PS4s, seized from off-grid miners in Ukraine. Credit Security Service of Ukraine.

GENERATION *The biggest renewable energy projects*

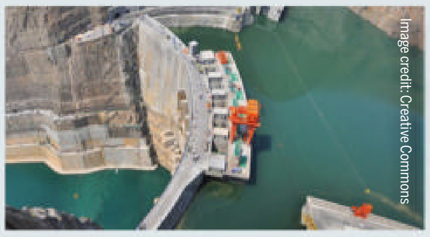


Image credit: Creative Commons

WUDONGDE HYDRO STATION
CHINA

Fully operational this year, this dam is expected to generate 39 billion kilowatt-hours of electricity a year.

INGA III
DEMOCRATIC REPUBLIC OF CONGO

A third dam (Inga I is pictured) tapping into the power of the powerful Inga falls would generate 4,500 MW of electricity.

Image credit: Creative Commons

KEEYASK HYDRO STATION
CANADA

Opening this year, the generator on the Nelson River (pictured) will have a capacity of approx 630 megawatts.

HORNSEA WIND FARM
UK

Phase Two of this English development should provide 1.2GW of energy via 165 turbines in the North Sea.

geothermal energy" from El Salvador's volcanoes. He also re-affirmed that the plan was for LaGeo to design a full Bitcoin mining hub around this new well.

El Salvador's scheme may be extraordinarily cool, and also potentially hot and deadly, but it pales next to the plans of a US firm, Talen Energy, to create a 300MW nuclear power plant and cryptomining facility in Pennsylvania, outside a township of 6,500 people. "Talen Energy is constructing a hyperscale data centre campus adjacent to its Susquehanna nuclear generation facility," a company presentation said in a statement. "It will provide low-cost, reliable, carbon-free power to the data centre clients on campus. This allows clients to benefit from carbon-free, 24/7 power being supplied directly to the campus, without the intermittency that renewable energy can experience, or requiring fossil fuels."

MINING FACILITIES USING ENERGY FROM THE COUNTRY'S VOLCANOS

Which is fine, though we've heard nuclear power may have one or two long-term drawbacks not related to spinning your own money out of maths while using more energy in a year than the whole of Sweden does (according to research from Cambridge University) and we still think we prefer the volcano option.

GAS WHO?

What seems like a much worse idea, however, given the whole 'fossil fuels are bad' thing we've been hearing recently, is to reopen a coal-fired power station in order to create invisible cash. But guess what? The Greenidge power plant in Dresden, New York, which sits on the shore of picturesque Seneca Lake – a glacial finger lake with legends of a sea serpent and a US Navy Undersea Warfare Center at its centre (the two are almost certainly unconnected) – was bought from its bankrupt former owner in 2014 by a private equity firm that converted it to burn natural gas, then set it to work powering its cryptomining business.

Greenidge Generation Holdings LLC says that, in March this year, its mining operation was drawing 19MW, but that would rise to 41MW by the end of June. Figures from New York Focus suggest the plant's CO2-equivalent output was 243,000 tons in December 2020, still way below its annual allowance of 641,000 tons. GGH plans to expand its crypto operation to 500MW by 2025, using Greenidge and other plants. And as long as it stays within the limits of its Department of Environmental Conservation permits, everything they are doing there is perfectly legal.

Of course, you don't need to own a power plant, or a volcano, to use it to mine with. Enterprising Ukranians with too many GPUs on their hands were caught last month hunkered in a large abandoned warehouse, siphoning power directly from Vinnytsia's grid to power more than 500 GPUs, 50 CPUs and, oddly, 3,800 PlayStation 4 consoles. They also had documentation relating to the consumption of electricity, and how to account for it.

Not noted as a particularly popular mining device, the PS4s turned out to be farming in-game currency and characters from *FIFA 21*. These would then be sold on to players looking for a leg-up in Ultimate Team mode. The consoles were being controlled by programs that ran on the graphics cards at the same time as they were mining ethereum. And they say cryptomining is an inefficient business. ■

Ian Evenden

YOUR NEXT PC

BUYER'S GUIDE

Build the best PC for your budget

ADVANCED
MID-RANGE
BUDGET
PHANTEKS

KEY

Budget build

PC gaming is for everyone. Pick the parts you want to build a new, well-rounded PC for a good price.

Mid-range build

You want to run every new game at 1080p 60fps. This recommended build will see you through.

Advanced build

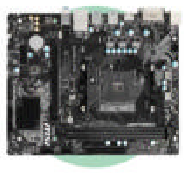
You're looking for the best PC on the market and superior components. But you still want to spend smart.

BUDGET BUILD

Enjoy 1080p gaming without breaking the bank

TOTAL
£600

MOTHERBOARD



A320M-A Pro

MSI **£42**

Everything you need and nothing else. This MSI motherboard is simple but it works. And that's all we can ask for at this price.

PROCESSOR

Ryzen 5 3400G

AMD **£130**

Capable budget CPU and GPU in one tiny package, and it also comes with its very own CPU cooler.

GRAPHICS CARD

None

This build is tailored to today's GPU shortage. But don't fret, once cards are back in stock you could slot one in to this PC for an upgrade.

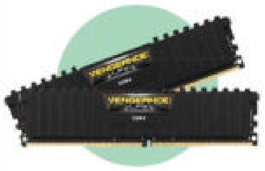
COOLER

Wraith Spire

AMD **Free with CPU**

The Wraith Spire is a great cooler made even better by the fact it comes free with our choice of chip. Budget heaven.

MEMORY

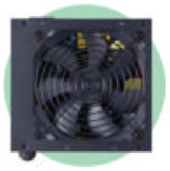


Vegeance LPX 8GB (2x 4GB) DDR4-3000

Corsair **£39**

For gaming we only really need 8GB of RAM, and this stuff is quick to boot.

POWER SUPPLY



MWE White 400W

Cooler Master **£39**

Small by today's standards, this PSU from a trusty manufacturer offers plenty of juice for this build and a little more.

SSD

MX500 500GB

Crucial **£57**

One of the best value SATA SSDs you can buy and plenty fast enough for a snappy OS.

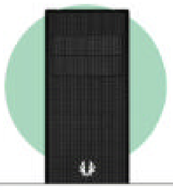
HDD

WD Blue 1TB 7200rpm

Western Digital **£37**

You don't necessarily need a HDD in 2020, but if you're a virtual hoarder, this'll give you loads of useful extra space.

CASE



Neos

BitFenix **£36**

You'll want to minimise how often you rebuild your PC, so make sure to give it a good home. This case'll do nicely.

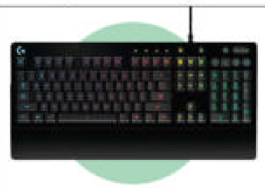
DISPLAY

GW2280

BenQ **£105**

A 1080p60 VA monitor will see you through in style and, once you upgrade, will make a superb second monitor.

KEYBOARD



G213

Logitech **£40**

It may be a membrane switch board, but it's stylish, and well-built. Sometimes that's worth more than cheap clicky switches.

MOUSE

G102

Logitech **£35**

A classic shape delivered in a sleek shell, this mouse fits all hand sizes and grips. A solid option for the money.

HEADSET

HS35

Corsair **£40**

This headset delivers in-game with its punchy drivers and clear microphone – perfect for video calls and multiplayer alike.

MID-RANGE BUILD

Our recommended build for playing the latest games

TOTAL

£1,438

MOTHERBOARD

B450 Tomahawk Max

MSI **£120**

A reliable platform for your build, the Tomahawk Max also comes in black to complement any style.

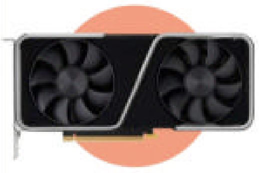
PROCESSOR

Ryzen 5 3600X

AMD **£198**

This CPU is one of the greats, and uses the Zen 2 architecture to dominate in gaming and productivity.

GRAPHICS CARD



GeForce RTX 3060 Ti Founders Ed.

Nvidia **£369**

The RTX 3060 Ti is a little overkill but we're willing to make sacrifices elsewhere to make it work.

COOLER

Wraith Spire

AMD **Free with the CPU**

We love a freebie, especially one as capable as the cooler includ ed with the 3600X. This'll keep your machine running smoothly.

MEMORY

Ballistix 16GB DDR4 (2x8GB)

Crucial **£75**

With plenty of capacity at 16GB, this unembellished memory has everything you need for gaming and more.

POWER SUPPLY

CX650M

Corsair **£93**

The heart of your gaming PC is your PSU, and this 650W Corsair promises to keep your rig ticking nicely.

SSD

S70 1TB

Addlink **£70**

Building on a budget doesn't mean sacrificing speed – the Addlink S70 proves you can indeed have both.

HDD

WD Blue 1TB 7200rpm

Western Digital **£37**

Just like in the budget build, this HDD isn't strictly necessary, but for a pretty low price it's nice to have plenty of extra space.

CASE

Eclipse P400S TG

Phanteks **£70**

An ATX case is all you need for this build. We like this one because it's simple, functional, and really nice to look at.

DISPLAY

AOC G2590FX

AOC **£173**

Everything a PC gamer could want: Full HD, 144Hz refresh rate, 1ms response time, AMD FreeSync and Nvidia G-Sync compatible.

KEYBOARD

Alloy FPS

HyperX **£80**

As the name suggests, this keyboard is built like an absolute tank, with a steel frame and Cherry MX switches.

MOUSE

Model O-

Glorious **£59**

Lightweight and responsive, the Model O- has made a name for itself among streamers and pros thanks to its clever design.

HEADSET

Blackshark V2

Razer **£94**

The Blackshark V2 offers up some killer audio quality to rival the greats. And at a reasonable price too.

ADVANCED BUILD

Go above and beyond with a PC powerful enough to end worlds

TOTAL
£4,216

MOTHERBOARD

MPG Z490 Gaming Carbon WiFi

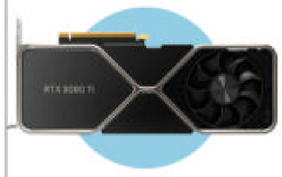
MSI **£260**
A heady mix of enthusiast motherboard functionality and build quality that stops short of god-tier motherboard pricing.

PROCESSOR

Core i9 10900K

Intel **£529**
If you want the fastest gaming CPU, look no further than Intel's flagship Core i9.

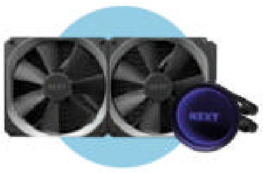
GRAPHICS CARD



GeForce RTX 3080 Ti Founders Ed.

Nvidia **£1,199**
The RTX 3080 Ti is the latest flagship graphics card from Nvidia, but savvy builders may prefer the RTX 3080.

COOLER



Kraken X63

NZXT **£123**
One of the most stunning AIO coolers rebuilt with an updated pump and, of course, RGB lighting for more pizzazz.

MEMORY

Vengeance RGB Pro 32GB DDR4 (2x16GB) @ 3,200

Corsair **£176**
If you truly want to show off, even your system memory should be aglow with RGB.

POWER SUPPLY

SuperNOVA 1000 G5 Gold

EVGA **£200**
This calibre of gaming PC draws a lot of power. Thankfully, this PSU can handle it with high efficiency

SSD

WD Black SN750 1TB

Western Digital **£169**
Western Digital is back on Samsung's heels with this brilliantly fast, yet affordable, 1TB M.2 NVMe SSD.

HDD

860 QVO 2TB

Samsung **£195**
Built on QLC flash memory, it's not the quickest storage around, but it's a speedy alternative to an HDD.

CASE

600C

Corsair **£135**
If you're going big on parts, you should grab a case that has plenty of room for upgrades down the line. This one will do just fine.

DISPLAY

Nitro XV273K

Acer **£780**
This one's an easy choice – 4K and 144Hz for under a grand is an offer we can't refuse, and neither should you.

KEYBOARD

G915 Lightspeed

Logitech **£210**
Low-profile mechanical switches are just the icing on the cake that is the superb, wireless Logitech G915.

MOUSE

G502 Lightspeed

Logitech **£110**
With a lengthy battery life and a phenomenal sensor to keep you gaming at your best, the G502 is undoubtedly one of the finest.

HEADSET

Arctis 7 Wireless

SteelSeries **£130**
If you've settled on a wireless keyboard and mouse, the last thing you want is a pesky cable to your headset.

“You’d best beware my energy sword should ye step anywhere near it”

Finishing the fight every weekend in HALO 3

Just over a year ago, a friend messaged me with an idea. *Halo 3* had just hit Steam via *The Master Chief Collection*, and he was planning on getting a bunch of pals together to play a few rounds of Slayer like it was 2007 all over again. Fifty-two weekends later (give or take) and we’re still going, testament to the fact that this wasn’t just an experiment in nostalgia.

NAT CLAYTON

THIS MONTH
Camped the Banshee spawn on Valhalla.

ALSO PLAYED
Apex Legends, Teardown

Every weekend we’ll gather for an evening of *Halo 3* shenanigans. Here’s how a night usually goes. It starts with a small free-for-all on Guardian to warm up, waiting for folks to finish up their dinner and jump in. We’ll move onto our staple of bigger maps as the gang arrives – The Pit, High Ground, Ghost Town – and maybe pick a few wildcard arenas before we hit the main event. Big Team Slayer on Valhalla.

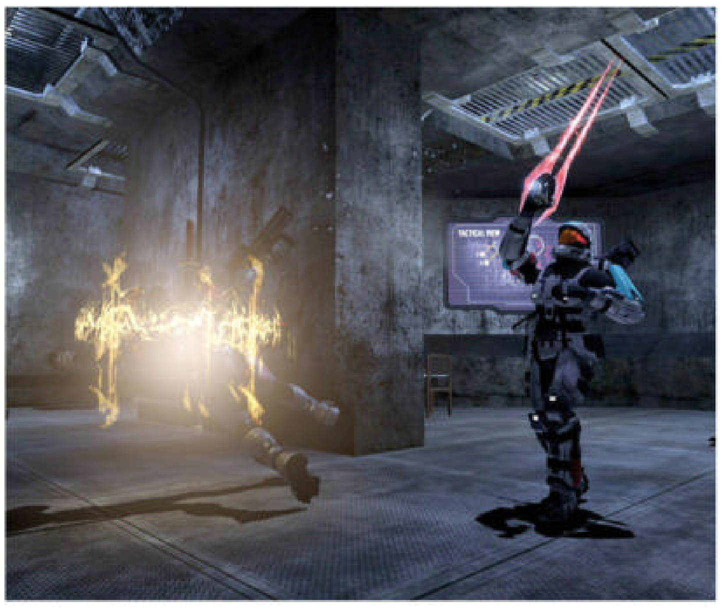
After an hour or two, with everyone burned out from sweating over deadly serious Slayer matches, we’ll mix things up with some outlandish custom Forge maps on Sandbox. The current favourite, Lava Pit, is effectively vehicular sumo, the lobby scrambling to push each other into a fiery hole using Warthogs, Mongoose, Ghosts, and an assortment of landmines and grav lifts. It’s completely wild, and the best possible way to close out the night.

ABOVE: It’s not teaming if only one of you gets the kills

It’s telling that, after a year, this hasn’t gotten old at all. *Halo 3* might be 14 years old (ouch), but nothing else has ever really done what it does. What makes it great is seeing how much better we’ve all gotten over the past year, with a kind of internal history driving how we play. An early run that saw me inflicting terror in a Banshee still has folks shouting in fear when I step into one, even if they’ve gotten pretty good at blasting me out of the skies.

Even better, however, are the custom modes people bring to the table themselves. Even outside of Forge’s map editing, *Halo 3* has a

IT’S TELLING THAT, AFTER A YEAR, THIS HASN’T GOTTEN OLD AT ALL



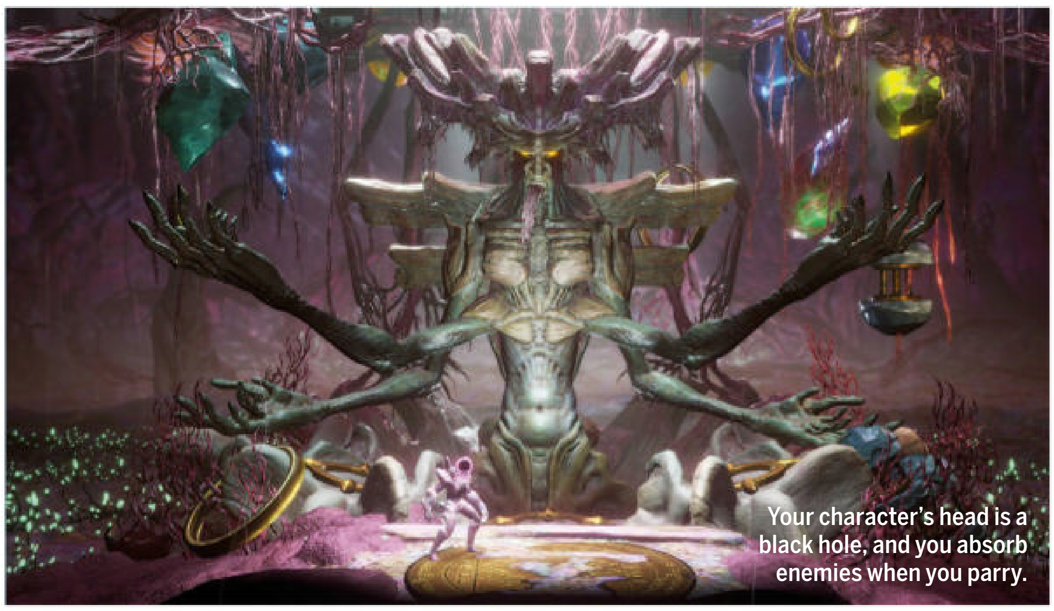
The warthog can easily carry an entire gamemode.

properly comprehensive suite of tools for tuning everything from player speed and weapon damage to gravity itself. John Wick mode gave everyone two one-hit-kill pistols with an honour rule to swap weapons between kills, while Anime Sandtrap saw player fly around Sandtrap at supersonic speeds, clashing with swords and scoring sniper headshots.

PIT STOP

A year of custom *Halo* has also spawned its own vocabulary. Some are more concrete than others, mind. Tossing a tripmine off a grav-lift so it flies across a map is definitively a 'Frisbee', while the definition of 'pulling a Nat' can mean everything from 'being good at *Halo*' to 'needlessly picking up the worst weapon in the map'. There's a room on The Pit that is now named the 'Chamber of the Blood Blade', and you'd best beware my energy sword should ye step anywhere near it.

It doesn't matter that I've only ever met most of these people on *Halo 3*'s killing floors. These sessions have been a lifeline during a year of isolation, and a welcome throwback to evenings spent burning through matchmaking. Here's hoping *Infinite* can carry that vibe into the future. ■



Your character's head is a black hole, and you absorb enemies when you parry.

"You've got to earn your scraps of story"

Wishing GRIME had a bit less soul

ROBIN VALENTINE

THIS MONTH
Officially became a grumpy old man who yells at clouds.

ALSO PLAYED
Dreamscaper, *Marvel's Avengers*

With its surreal, creepy visuals, distinctive combat, and solid metroidvania level design, *Grime* was a lovely indie surprise for me this month. I just wish it wasn't trying to be *Dark Souls*.

I like the *Souls* games well enough, but for me their influence on the indie scene has been pretty tragic. It feels like these days any time I spot any kind of action game with a cool, attention-grabbing art-style, it turns out to be burying its best features under borrowed ideas.

Grime's world is so intriguing – a bizarre alien landscape inhabited by malformed rock people and worse. It somehow evokes an unsettling atmosphere of body horror in a setting where everyone's made out of minerals, and you can't help but want to know what it's all about and how all this strangeness came to be.

Then you realise that those origins are only going to be told to you via totally cryptic item descriptions and nonsensical dialogue. Perfect for obsessives to ponder over, utterly alienating for anyone who just wants a fun story or some accessible lore.

And, of course, you've got to earn your scraps of story. *Grime*'s combat is full of great ideas – including a parry that lets you absorb enemies to gain new abilities – and its winding levels are fun to explore, with lots of interesting side-paths and shortcuts. But it's all bogged down by a need to make the act of progressing a punishing ordeal. Enemies hit hard, cruel checkpoints force you to replay the same sections over and over, and carefully-crafted 'gotcha' encounters stunt the efforts of anyone who dares let their guard down.

GRIME SPREE

The *Souls* games use challenge and danger in fascinating ways, but making things slow and difficult isn't inherently good design. In the case of too many smaller games, it turns what could have been a fun and breezy ten hours into a grindy, repetitive thirty that most players will never bother to finish.

I'm sure there are people out there who are thrilled that this subgenre has gained so much momentum in recent years – but I miss the days when cool indie adventures like this didn't feel the need to be obtuse uphill climbs. ■

“The environments are cluttered, bustling, and convincingly lived-in”

Falling in love with the Arcology, the setting for cyberpunk shooter THE ASCENT

ANDY KELLY

THIS MONTH
Rose to the top, like cyber-augmented cream.

ALSO PLAYED
The Great Ace Attorney Chronicles

Man, Night City left me cold. As a fan of dark future cities, I was excited to explore the streets of *Cyberpunk 2077*’s setting. But the closer I looked the more I stopped believing in it as an actual *place*. Which is the opposite of the experience I had with *The Ascent*, a new action RPG made by a tiny 11-person indie team made up of veteran game designers.

The Ascent is set in The Arcology, which is essentially an entire city squeezed into a monolithic skyscraper. It’s a vast, multi-tiered metropolis. It’s derivative, sure, but rendered with such fidelity and style that I found it hard to care. It’s honestly mind-blowing how good it looks, and the sheer depth of detail impressed me way more than Night City ever did – a real achievement for an isometric shooter.

Well, it’s not *entirely* a shooter. There’s a touch of character progression, mostly frivolous sidequests, and scattered NPCs to chat to. But it’s by no means a proper RPG. I wish it was. Just imagine a deep role-playing experience like the original *Fallout* games in this wild setting. But alas, it’s almost entirely all about the action. Even so, I was utterly captivated by it. It’s a brilliantly, richly varied setting, and each district of the Arcology looks, feels and sounds unique.

The environments are cluttered, bustling, and convincingly lived-in. Mountains of trash, streams of flying cars, maintenance bots fixing broken street lights, screens looping garish commercials – there’s just so much going on across every inch of screen. And it’s not just the density that’s visually striking, but the art too. The costumes, corp logos, mechs, cars, machinery, and buildings are all obscenely detailed.

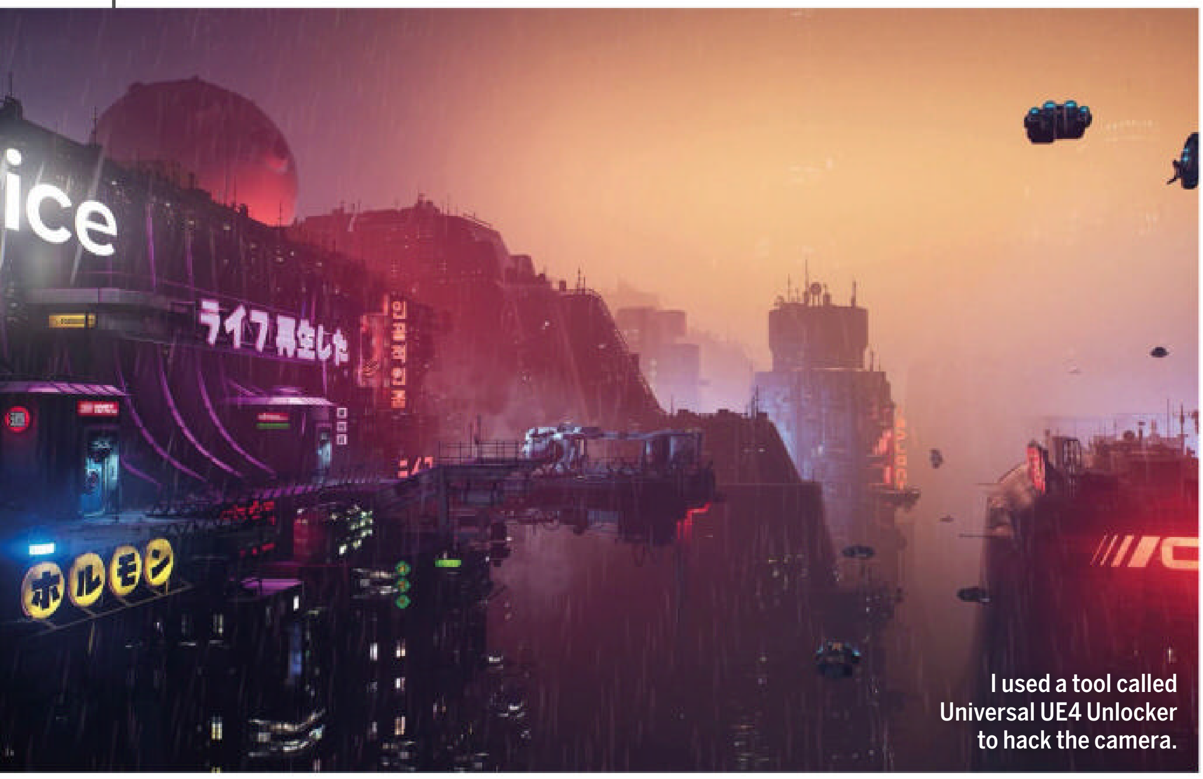
THE SHEER DEPTH OF DETAIL IMPRESSED ME WAY MORE THAN NIGHT CITY EVER DID

WE BUILT THIS CITY

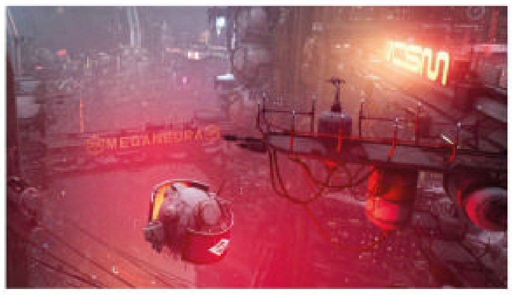
The concept of a whole city crammed into an enormous skyscraper is more interesting and imaginative to me than *Cyberpunk*’s setting. Remove some of the video billboards and holographic neon signs and Night City could be any modern metropolis. However, the idea of this towering Arcology, teeming with life from all corners of the galaxy, where each level represents a different social stratum, is incredibly compelling.

And by adding some elements of science fiction *The Ascent* brings something a little different to the well-trodden cyberpunk genre.

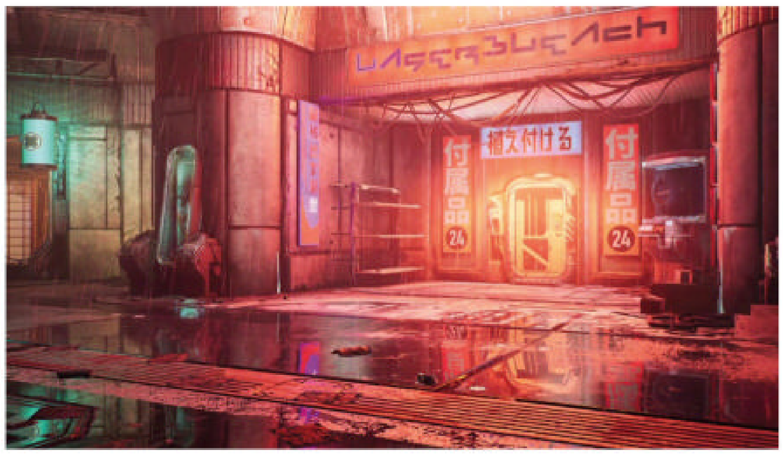
The setting feels crowded, diverse, dense, and dangerous in a way few games manage to evoke, which becomes even more apparent when you hack the camera and take a closer, more detailed look at it. The screenshots on this page were all taken this way. Night City has its moments, usually when you’re looking at it from afar, but it’s got nothing on The Arcology. ■

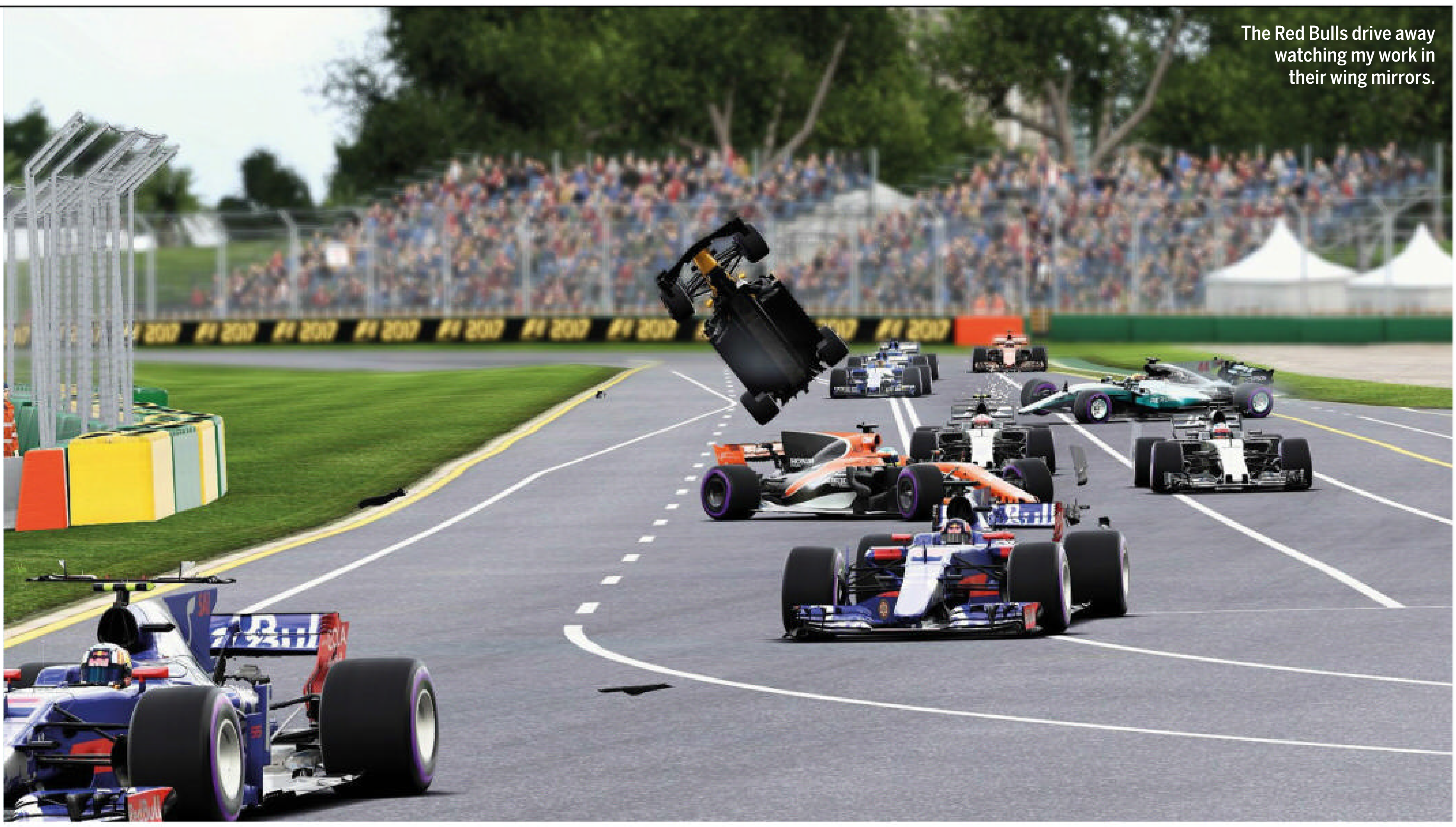


I used a tool called Universal UE4 Unlocker to hack the camera.



BELOW: An isometric game has no right looking this good up close.





The Red Bulls drive away watching my work in their wing mirrors.

"Could a quality peripheral turn me into Michael Schumacher?"

Will a fancy wheel bring the Grand Prix, or the booby prize, in F1 2017?

MATT KILLEEN

THIS MONTH
Had all the gear, and absolutely no idea.

ALSO PLAYED
Borderlands, Star Wars: Jedi Fallen Order

I got drunk once and an expensive, PC Gamer recommended steering wheel showed up a week later. I rationalised that it would help my wife to overcome her driving anxiety, but it turns out *Euro Truck Simulator 2* doesn't really help with that. British roads are already too narrow for an American who hit another car on her driving test, let alone when you're backing up a lorry.

So, after a brief honeymoon, the wheel, gears and pedals started getting in the way and were stored, temporarily, back in their box. The weeks became months, and you can guess the rest.

Haunted by their presence, and after rolling F & 1 in my unused Steam library lottery – a fairly unambiguous sign from the gaming gods – I plugged them back in. Given a little practice, could a quality peripheral turn me into Michael Schumacher? I'd settle for Ralf, or even Mick. Would a childhood feeding 10p pieces into *Pole Position II* in some tatty seaside arcade be adequate preparation?

Unforgiving is one word to describe F1. Vicious and sadistic would be another two that spring to mind. It is, of course, the ruling deity of the hardcore. Just one error behind the wheel, and you'll crash. When you do, it's your fault. You just haven't practised enough. Failure is a millisecond away. But I persevere.

After hours perfecting the 'Very Easy' Albert Park Circuit in Melbourne, or getting round without crashing anyway, I progress to a race. There I run into an added complication, literally. From the back of the grid, I find 19 cars in my way, and unlike the racing line, they're unpredictable. I end up causing the kind of crash that gets shown on the news and emailed around on Monday morning.

I ENDED UP CAUSING THE KIND OF CRASH THAT GETS SHOWN ON THE NEWS

WHEELY HARD

So, I cheat. As Lewis Hamilton I jump straight to the race, skipping qualifying. From pole, it still takes a few races to make it into the points. Finally, I make one error, just one, that lets my teammate Bottas past me, but I regain control in the gravel trap and I close out the race, leaving Vettel breathing my dust.

I am a racing god. A sweaty, aching, hungry, first-loser, with bruised hands and callouses, capable of ignoring the repetitive commentary so I can watch the podium animation, because I have earned it. Now I just need my wife to get those machine parts to Lublin and my victory will be complete. ■

MINECRAFT

A ten-year-old game is still reaching new heights.

By Leana Hafer

Even though *Minecraft* has gotten new monsters, new blocks, new biomes and even new planes of existence over the last ten years, some things have stayed consistent. And one of these golden rules I never thought would be broken is the fact that the world was 256 layers tall, from the depth of the deepest cavern to the highest point you could place a block. With the Caves and Cliffs update (part of which is already out and the rest is slated for later this year), that's finally changing. A lot.

NEED TO KNOW

RELEASE
November 18, 2011

DEVELOPER
Mojang Studios

PUBLISHER
Microsoft Studios

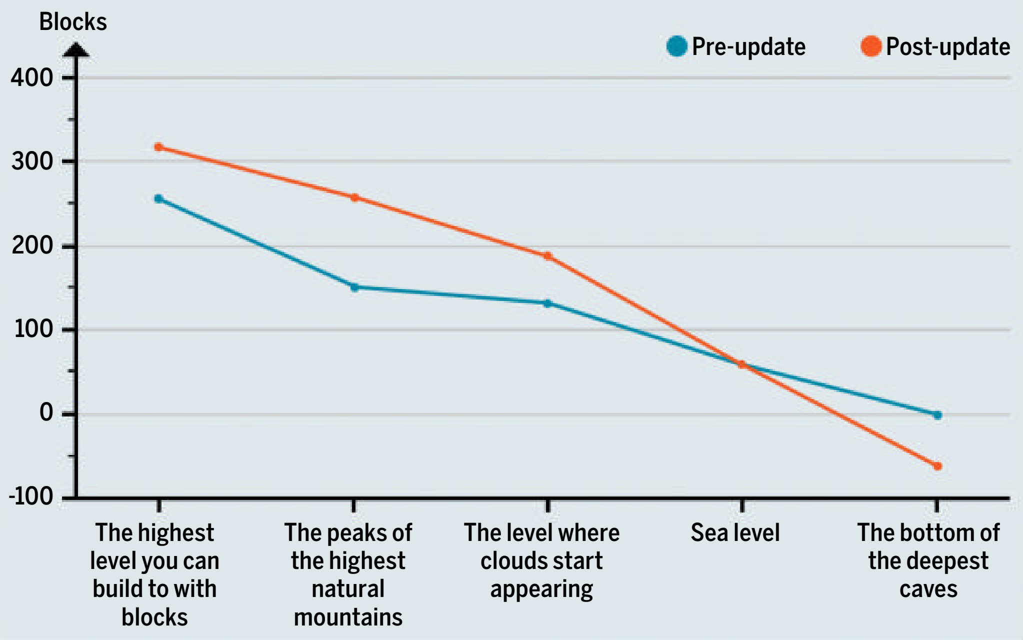
LINK
minecraft.net

With the new world generation code, the underground portion of *Minecraft* is doubling in size. If you like to dig too greedily and too deep, this is amazing news. Before the update, layer zero was where the game would start generating unbreakable (without cheats), solid bedrock. That's around 62 blocks below sea level. Now, in addition to a number of new, sprawling cave biomes, the world will bottom out at -64, which is 126 blocks below sea level. To make things more treacherous as you descend, layers below the old bedrock limit will start to replace plain stone with a new block called deepslate. It takes four times as long to break, so you'll really have to work to reach those new depths.

In the opposite direction, the buildable height limit is expanding by the same amount. While previous versions would stop you from placing blocks any higher than layer 256, you'll now be able to expand your Tower of Babel all the way up to layer 320. What this means all together is if you built the tallest possible dirt tower, and right next to it dug the deepest possible hole, then jumped from one into the other, you would be falling for about 50% longer than in older versions. And you're going to need that extra room, since the maximum height at which terrain can naturally generate is being increased by over 100 blocks, too.

The tallest mountains before the update topped out at give or take 150 blocks, roughly 90 blocks above sea level. Once, that could have seemed pretty dramatic. But hold onto your butts. The peaks of the new mountain biomes in 1.18 can soar all the way to a height of 260 or possibly higher – almost 200 blocks above sea level! And you might note that I said biomes, plural. Not only are there multiple types of summits depending on climate, including ones that can have icy glaciers built in, but each mountain is so big that it's made of multiple, smaller biomes now.

DEEPER UNDERGROUND *How low can you go?*



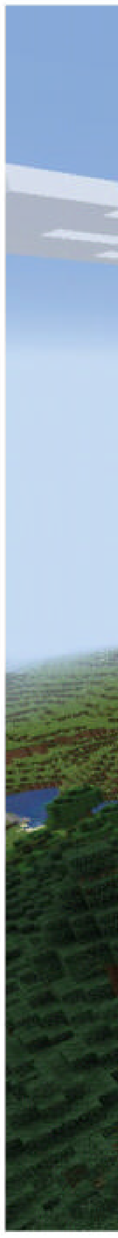
META-BIOMES

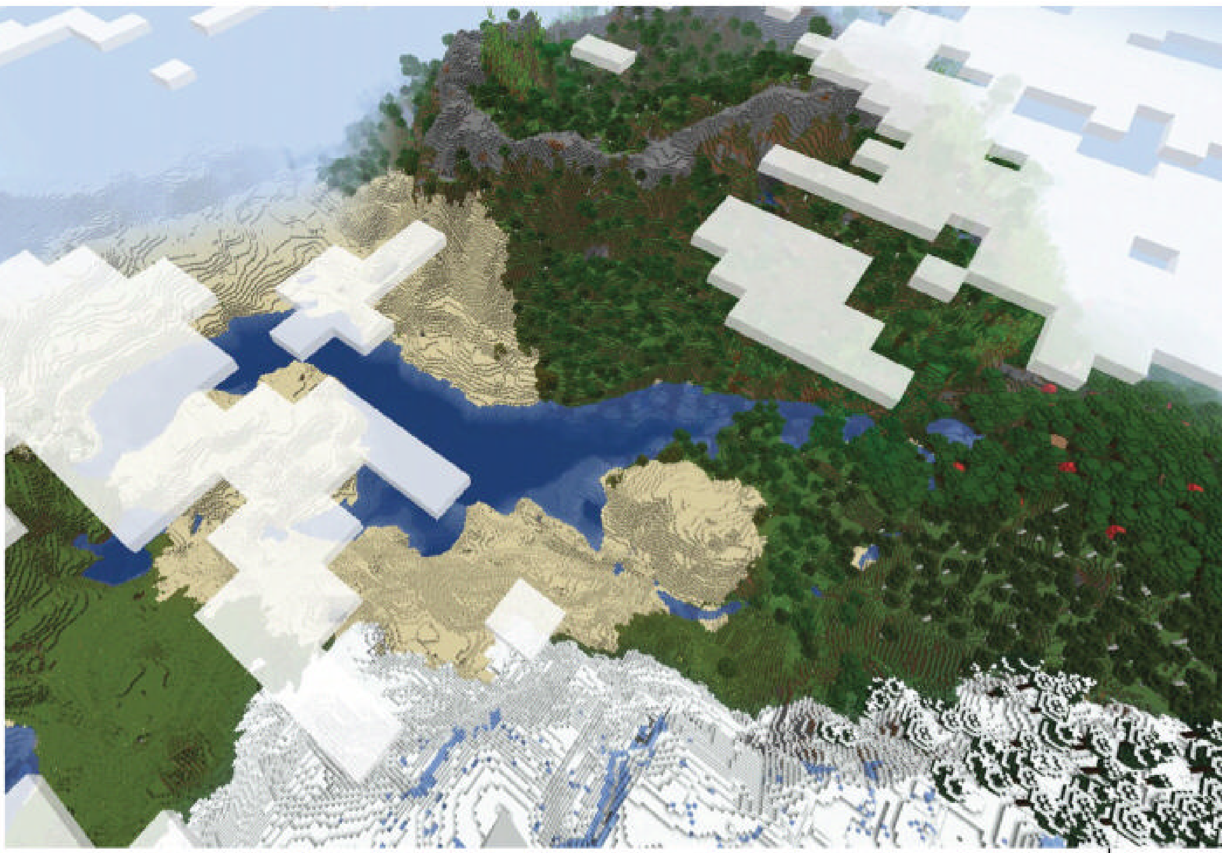
At the base of these meta-biomes, you might find sub-biomes like a Mountain Meadow or a Mountain Grove. This can give way to a much steeper Snowy Slopes climb at higher altitudes, and it will all be topped off in one of three ways based mostly on the climate of the surrounding area: Stony Peaks for warmer areas, Lofty Peaks for temperate ones, and Snow Capped Peaks for the coldest regions. While these areas are all part of the same overall mountain biome, they also have their own flora, fauna, block types and spawning rules, which is a first for *Minecraft*. Biomes within biomes! Woo!

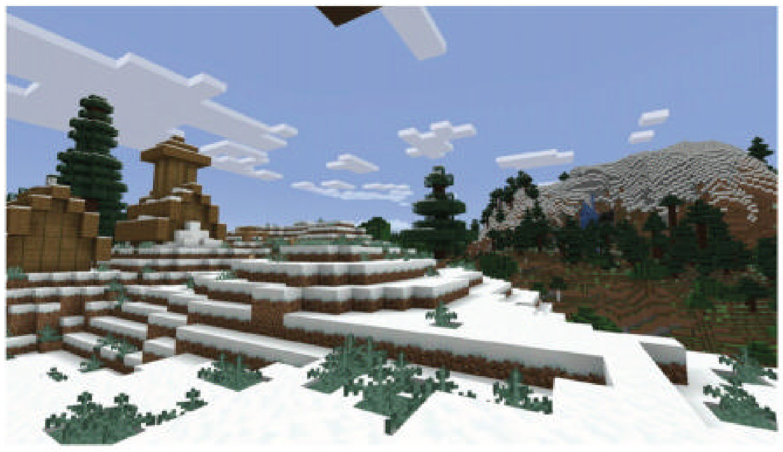
> **YOU'LL REALLY HAVE TO WORK TO REACH THOSE NEW DEPTHS**

As someone who has always loved the feeling of exploring a vast, randomised, untamed wilderness in *Minecraft*, these new caves and mountains add a lot of excitement and have gotten me back into the game in a big way. I really wasn't prepared for the first time I came upon an actual, mountain-sized mountain after years of being content with what were, in comparison, just really steep hills. And knowing that the world beneath my feet is so much deeper and more treacherous than before recreates a butterflies-in-my-stomach feeling of the foreboding unknown I hadn't felt since my early days of foolishly digging straight down.

Some of the new features are already available in the live 1.17 version of *Minecraft*, but you can help test out the others in the latest experimental 1.18 snapshot if you're feeling a bit daring. ■

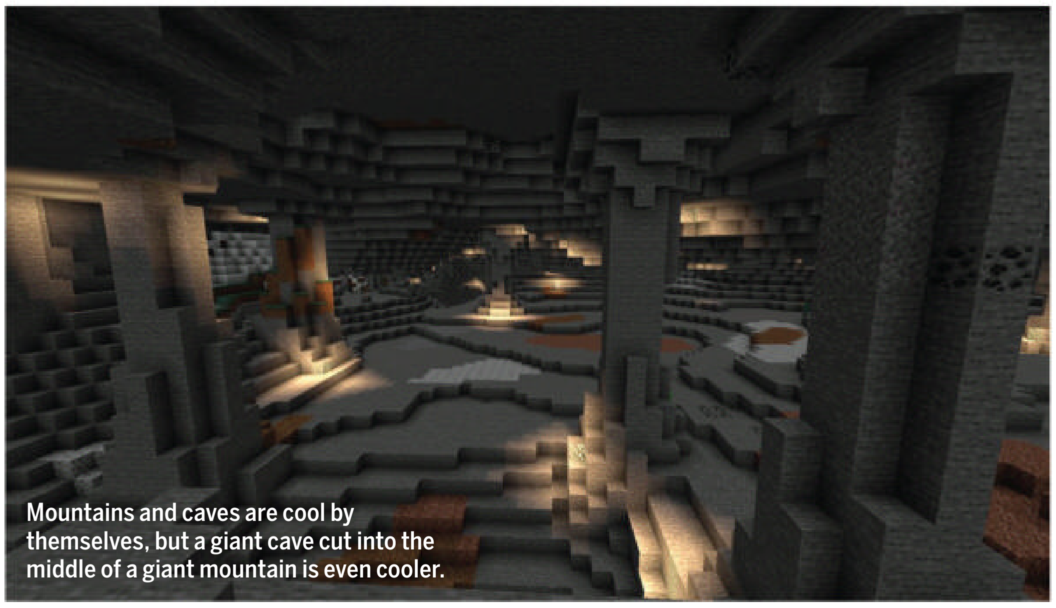




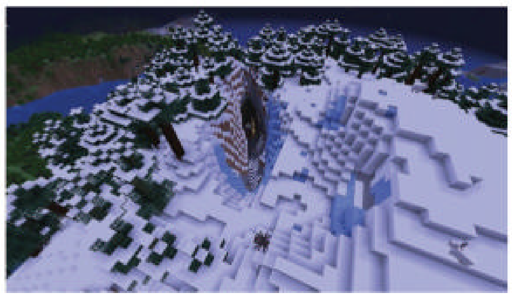


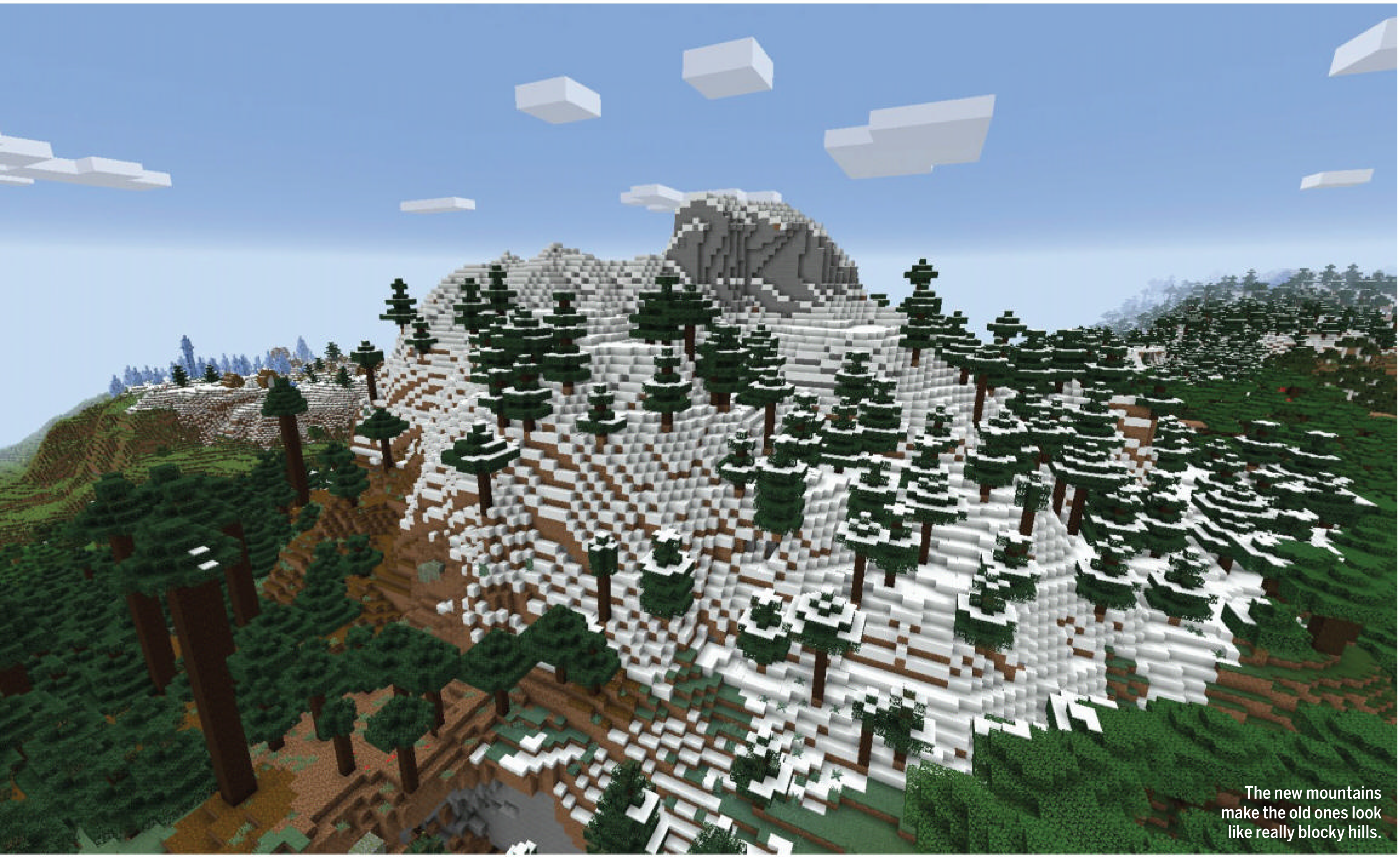
ABOVE: Looking down from the new maximum block height makes even mountains seem small.

LOWER LEFT: A snowy, alpine village overlooking the summit of the next peak over. Mountains come in ranges now, too!

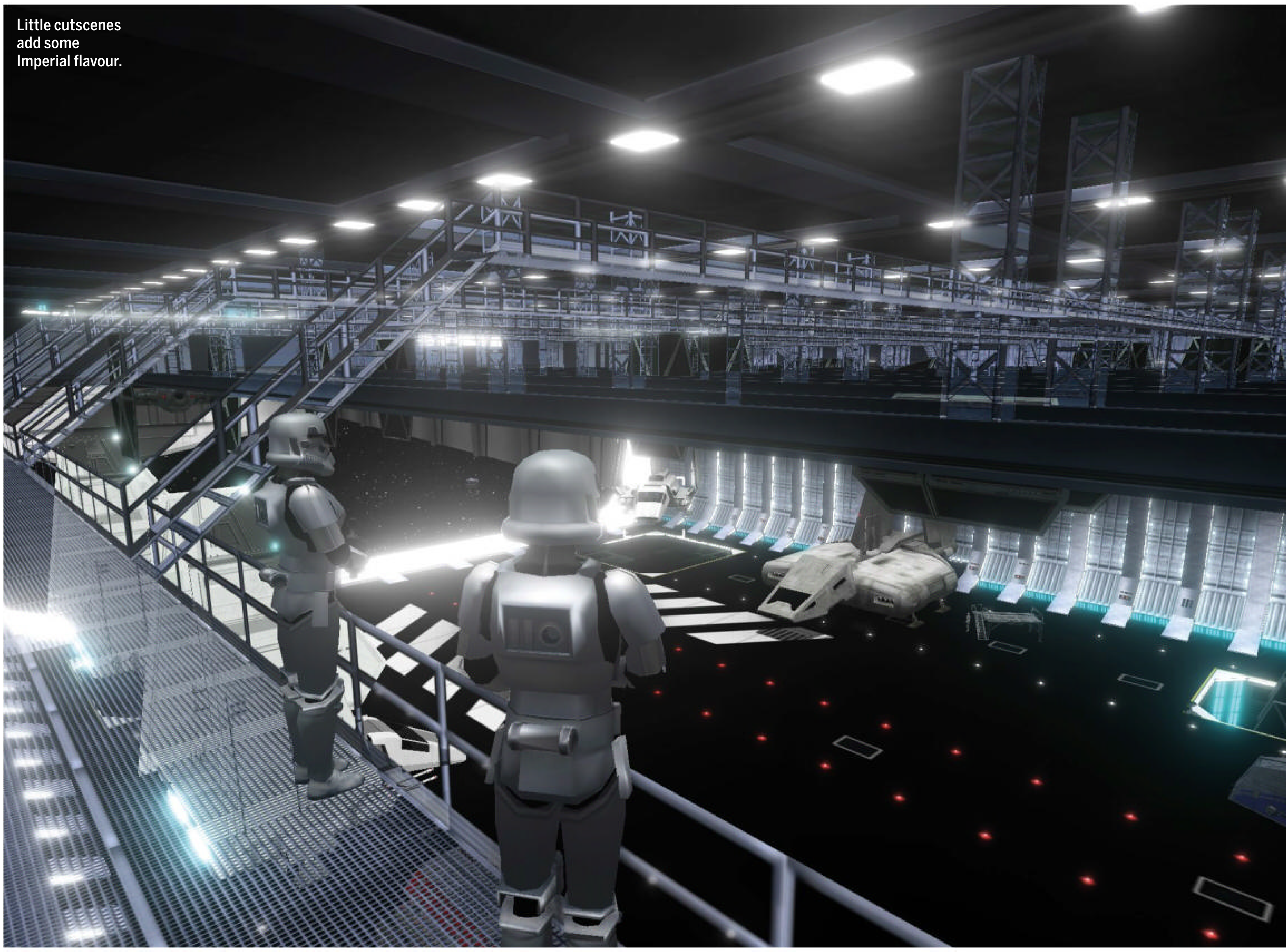


Mountains and caves are cool by themselves, but a giant cave cut into the middle of a giant mountain is even cooler.



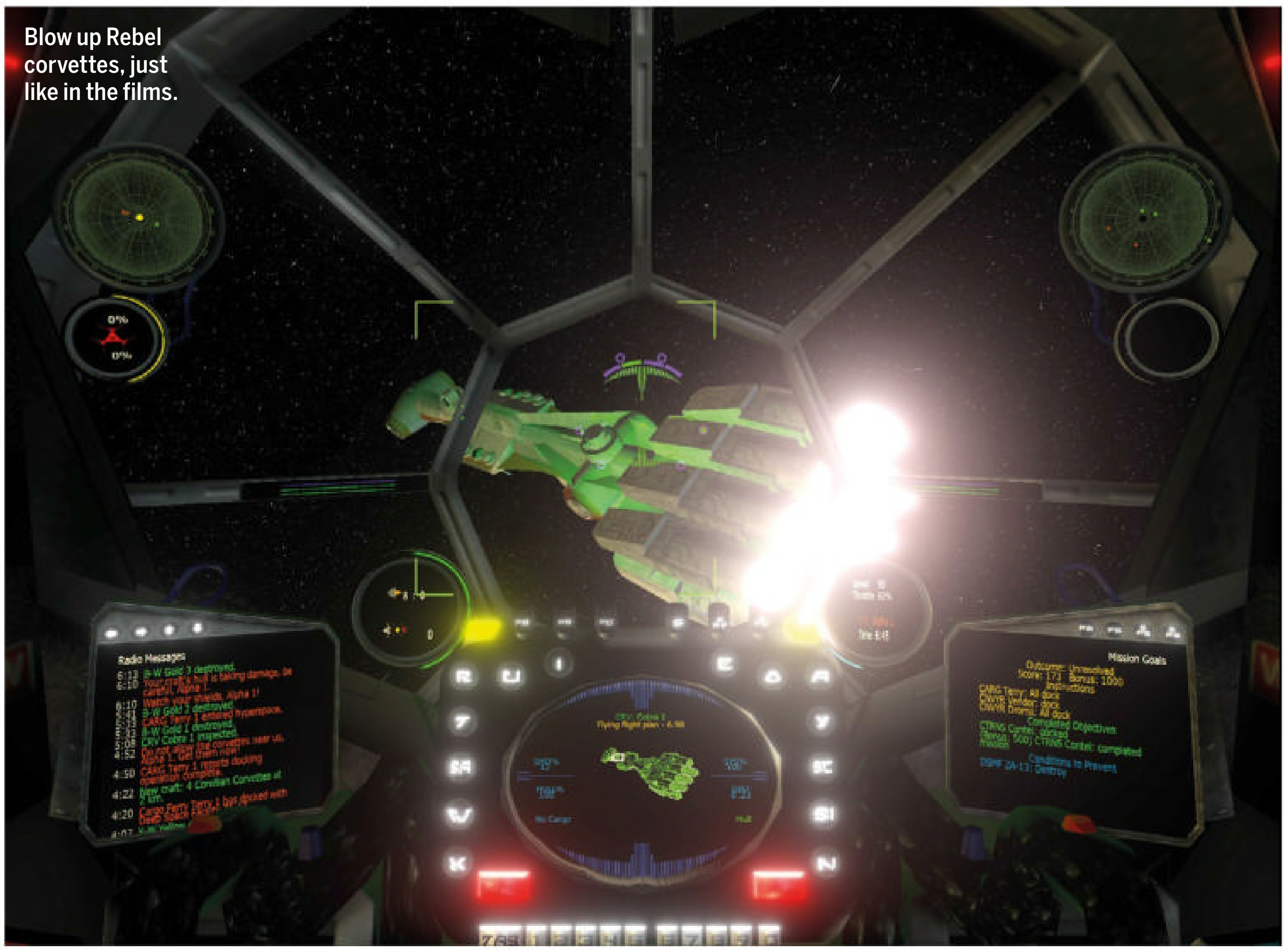


The new mountains make the old ones look like really blocky hills.


Little cutscenes add some Imperial flavour.

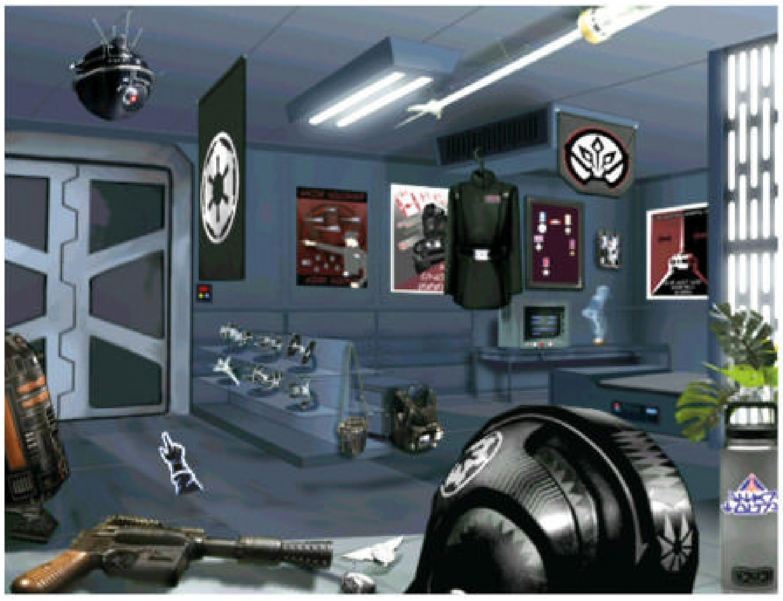
TOP: Haven't I seen this ship before?

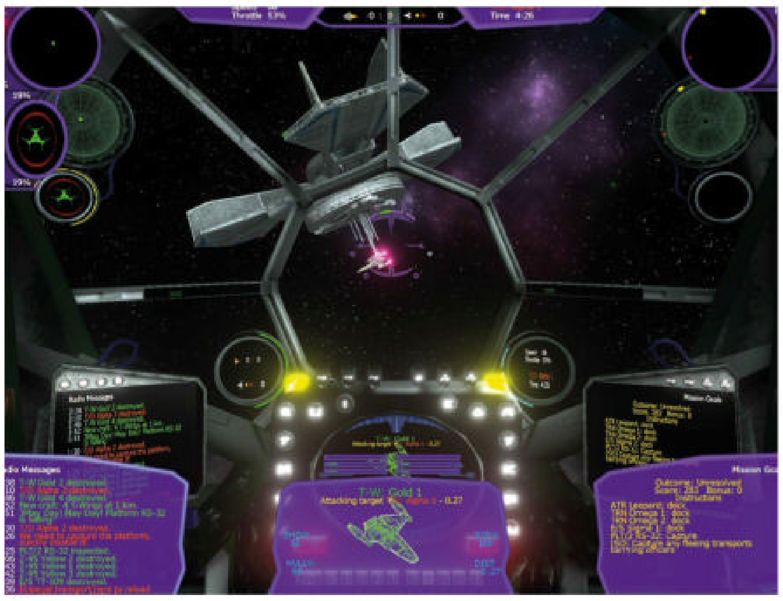
ABOVE: Beautiful new visuals for a classic game.


Blow up Rebel corvettes, just like in the films.

TIE FIGHTER: TOTAL CONVERSION

A brilliant port of the classic dogfighting sim. *By Christopher Livingston*





TOP: Decorate your room in between missions.

ABOVE: Sometimes you have to disable entire spaceports.

It can be hard going back to play a game you loved years ago. Sometimes nostalgia is strong enough to overlook things like ageing graphics, tinny sound and fewer of the features we've become accustomed to with modern games. But sometimes no matter how much you enjoyed a game in the past, it's just too difficult to get back into it again when so many years, or even decades, have gone by.

And it can be especially hard convincing other people to play a game from a couple decades ago. I can tell people until I'm blue in the face that LucasArts' 1994 dogfighting simulator *TIE Fighter* isn't just the one of the best Star Wars games ever, but that it's one of the best games ever, full stop. It's a true classic. Unfortunately, these days, it looks like a classic, too. It's just really, really old. I think if you didn't play it then, you'd be pretty unlikely to play it now.

So to my mind, *TIE Fighter: Total Conversion* is just about as close as you can get to a perfect mod. Not only does it do a fantastic job of porting the original *TIE Fighter* into *Star Wars: X-Wing Alliance*, it comes with updated visuals, sports a remastered soundtrack, and adds to the original campaign with new and more expansive missions.

It even supports VR, thanks to the *X-Wing Alliance Upgrade Project*, which is another hefty mod that you'll need to get this one running. All told, *TIE Fighter: Total Conversion* and *X-Wing Alliance Upgrade Project* are two of the most impressive and essential mods I've ever seen. They really reach into the past and pull *TIE Fighter* into the present, staying true to the original but updating it so it feels new and modern. It's been a real joy booting up the mod, climbing into my ship, and doing battle with the Rebel Alliance.

NEED TO KNOW

RELEASE July 1994	**DEVELOPER** Totally Games
PUBLISHER LucasArts	**LINK** bit.ly/3k3Hmq1

> **JUST ABOUT AS CLOSE AS YOU CAN GET TO A PERFECT MOD**

TIES THAT BIND

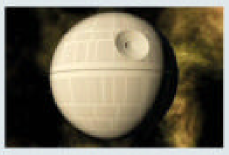
When the original *TIE Fighter* came out, it was a pretty remarkable game because it let you play as the bad guys, the Empire, which wasn't a perspective we'd had before or even knew we wanted. And that perspective didn't even make you feel like that bad of a guy, really. Through *TIE: Fighter*'s lens, the Empire was just trying to keep the galaxy in order and the Rebellion were a bunch of chaotic, grubby space bandits who

MOD SQUAD

Other great mods for Star Wars fans

HERO BLAST FOR STAR WARS BATTLEFRONT
Data miners found an unreleased 6v6 mode for *Battlefront* and modders restored it.

CONQUEST FOR MOUNT & BLADE
Yep, a Star Wars mod for a medieval role-playing game. Yep, it's great.



FALLEN REPUBLIC FOR STELLARIS
This full conversion mod brings everything Star Wars into *Stellaris*.

IMPERIAL ARCHITECT FOR PRISON ARCHITECT
Who wouldn't want to run a Star Wars prison?

were stirring up trouble. Sometimes if you want to embrace peace you have to catch it in your black-gloved hands and crush it. *TIE Fighter*'s story, amazingly, made you feel like you were doing the right thing.

Not only was playing as the Empire unusual enough, but it put you in at the ground floor. You weren't some badass evil Jedi like Darth Vader or some combat veteran like Han Solo, you were just an entry-level pilot in the Imperial Starfleet, cannon fodder, a rank-and-file recruit. And it's been a lot of fun re-experiencing all that in *TIE Fighter: Total Conversion*, starting with the early tutorial missions.

I still love the structure of the game. You begin on an Imperial space station, then click to open a door to the briefing room, where you're told dispassionately what is expected of you. This isn't the Rebellion, where rousing speeches are given to inspire the underdogs. You have a job to do and you're going to do it well because the Empire doesn't tolerate failure.

You begin in a fighter, not even using your engines, just swivelling around to shoot a few cargo containers while following the instructions given to you. After each mission there's a debriefing before you accept your next task. Gradually you take on more complex missions and eventually begin to see a bit of real combat, made all the more harrowing when you realise you're basically flying in the cheapest ship the Empire can produce. No shields, no hyperdrive, just a mass-produced tin can that can only take a tiny bit of damage before it explodes. That's what you fly until you can prove you're worthy of something faster, sturdier and with more power.

And you can forget about seeing an X-Wing in your crosshairs for a while. You'd expect a *TIE Fighter* game to immediately plop you into a massive, exciting battle with the Rebels, but you take on a few pirates at first, that nondescript faction that's hated by both the Empire and the Rebel Alliance. Many of the missions have surprises along the way, as a simple job scanning cargo ships uncovers some contraband or a quick escort mission for an Imperial freighter becomes a pitched battle. Eventually you'll see a ship you recognise on your screen, a real Rebel ship, like maybe some Y-Wings and B-Wings, and eventually you'll really be going toe-to-toe with a genuine X-Wing. Hey, maybe that's Luke Skywalker himself!

Even in the mod it's easy to admire just how cool the original flight sim was. Balancing your ship's power between weapons and engine (and shields, on the rare occasions you have them) is still exciting and fun, and there's never a session that goes by that I don't silently thank the developers for the 'match speed to target' button so I can easily settle in behind an enemy and pepper them with laser blasts while tailing them. You get to fly a number of different Imperial craft, too, from TIE Bombers to ultra-cool Interceptors and even Imperial shuttles. And you'll recognise plenty of ships out your window, too, from Corellian corvettes to Mon Calamari cruisers.

IMPERIAL ASSAULT

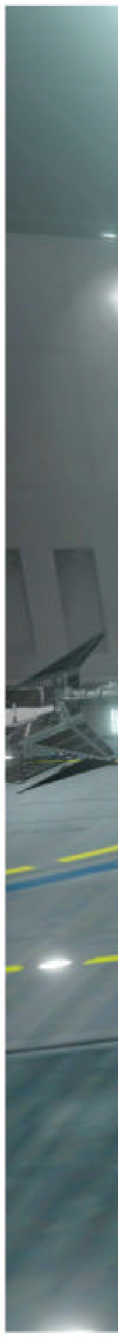
The pragmatism (some might call it ruthlessness) of the Empire is pretty apparent, too, as in some missions you're basically thrown into battle like a handful of gravel, just one of lots and lots of expendable fighters the Imperial Navy sends out to overwhelm their enemies by sheer numbers. And there's a really excellent campaign and story to progress through, working your way from a lowly disposable pilot to someone who catches the attention of the Empire's upper echelons. In later story missions, you'll even hunt down and exterminate Imperial traitors, along with various other space criminals. Again, it's a neat way to expand our view of the Empire and the Star Wars universe. In the movies the Imperial pilots are always going up against the Rebel heroes, but *TIE Fighter* fills in the blanks, showing everything else the Empire has to deal with when they're not chasing down the Millennium Falcon.

BETWEEN MISSIONS YOU CAN CHILL IN THE CREW QUARTERS

And between missions you can chill in the crew quarters, where your personal room will slowly be filled with the medals and honours you've earned. You can review your flight stats and kills on a terminal, admire some Imperial propaganda posters and ship models, fondly gaze at your astromech droid (who is probably way cooler than R2D2, so suck it, Luke), and reflect on how you're helping the Empire establish control over an unruly galaxy.

I've been playing the mod with a keyboard and mouse, which is not terribly ideal but I don't have a flight stick or even an Xbox controller at the moment. But *TIE Fighter: Total Conversion* does support a number of controllers, and the community has been putting together additional controller profiles for others to use. And like I said, the mod is even playable in VR, pretty amazing for a game that was built more than 20 years before VR became something we could get our hands on.

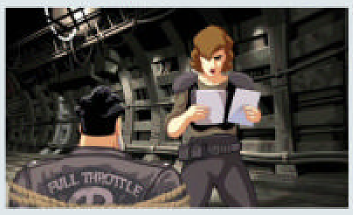
If you've never played the original *Star Wars: TIE Fighter*, you should give this mod a try. The game holds up magnificently and it's all perfectly captured in the mod, it just looks and sounds much better. I'm certain any Star Wars fan or flight sim enthusiast would have a blast. And if you did play and love *TIE Fighter* back in the day, the mod is the perfect way to revisit it again. It incorporates all of the original and expansion missions, plus new and enhanced versions of a number of campaign missions. In total, there's nearly 150 missions to play. All you need is a copy of *Star Wars: X-Wing Alliance*, which you can buy on Steam or GoG for about ten bucks. That's a small price to relive this classic. ■



ARTS AND CRAFTS

The best '90s LucasArts games

SAM & MAX HIT THE ROAD
Still the funniest adventure game ever as the Freelance Police explore roadside America.



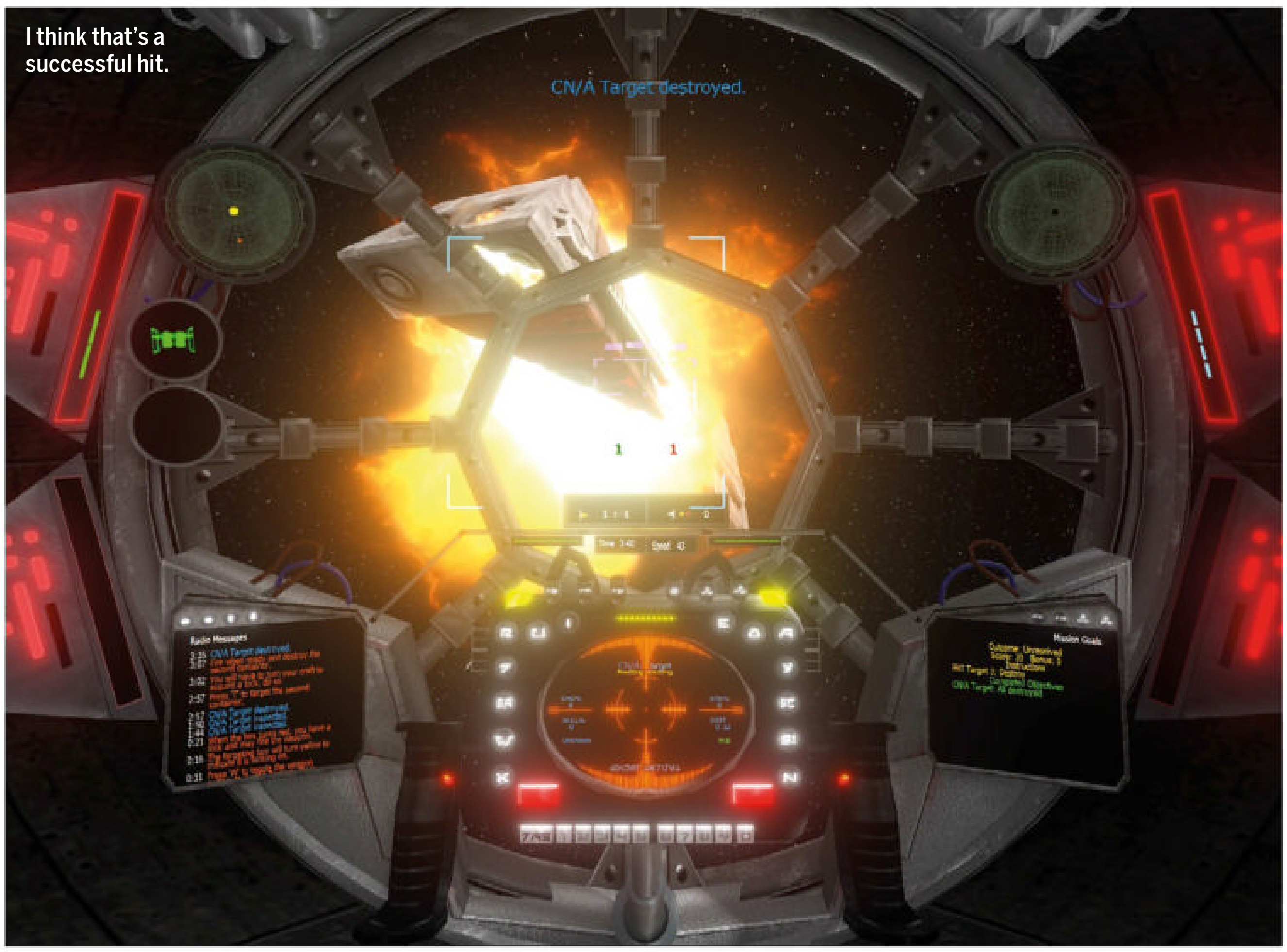
FULL THROTTLE
A biker with a heart of gold tries to stop minivans from taking over the highway.

GRIM FANDANGO
The afterlife and film noir. A delightful and unforgettable combination.

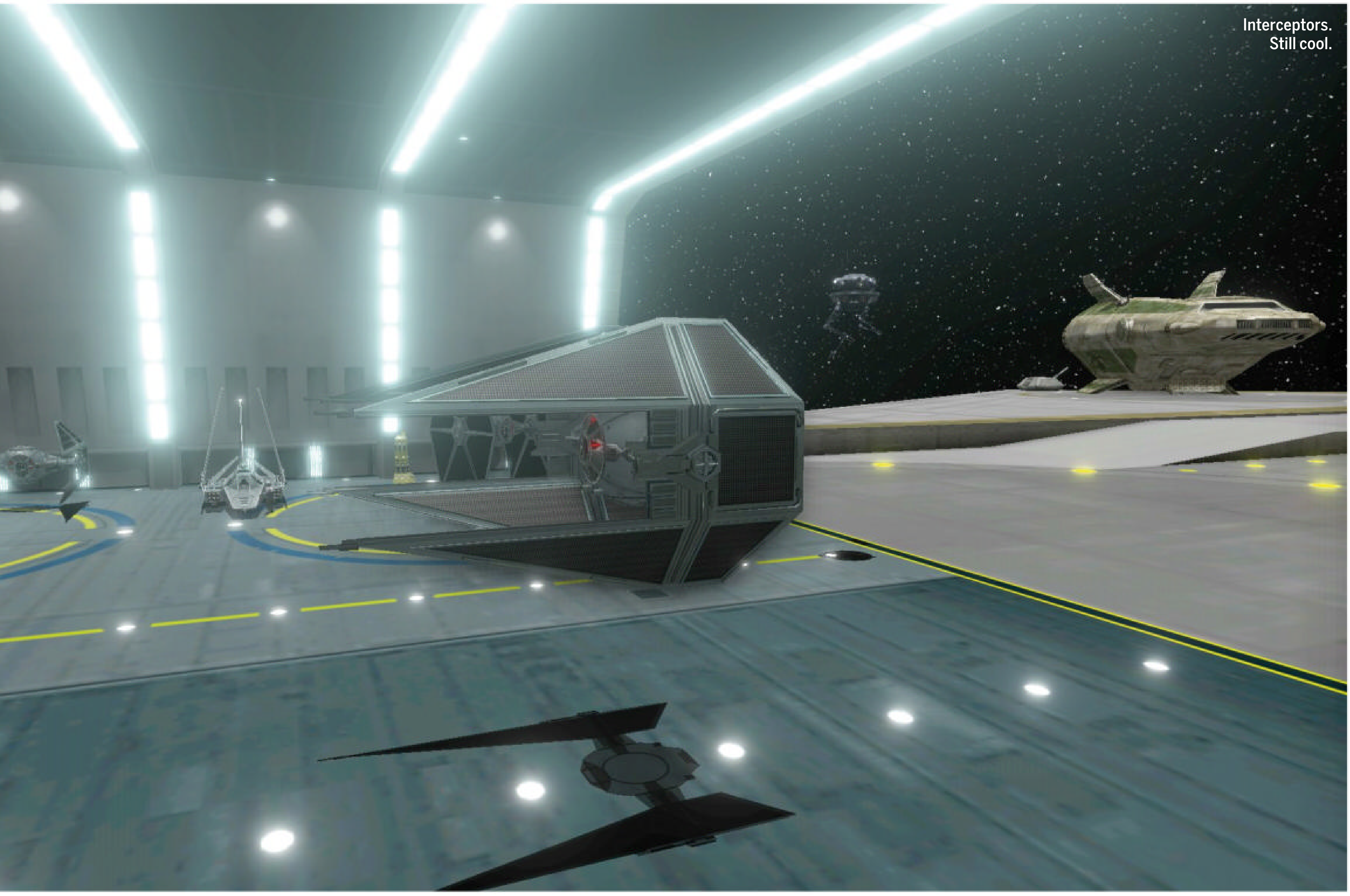
MONKEY ISLAND GAMES
Insult swordfighting, spitting contests, monkey kombat and Murray. They're all great.

TOP: It's not an X-Wing, but close enough.

ABOVE: Unlike the Falcon, no problems jumping to light speed here.



I think that's a successful hit.



Interceptors. Still cool.

GET STARTED IN

GENSHIN IMPACT 2.0

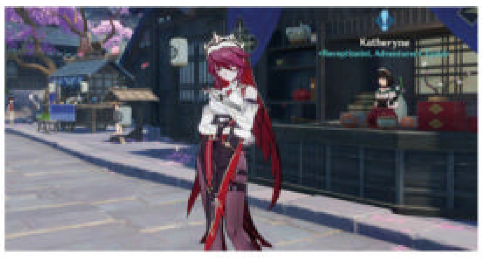
Make the most of your time once you dock in Inazuma. *By Sarah James*

NEED TO KNOW

DIFFICULTY
Easy

TIME
Ongoing

VITAL LINKS
Best characters: bit.ly/3fQY62u
Best Ayaka build: bit.ly/3jAuJSY
Sakura Bloom locations: bit.ly/37ujN30



TALL STORY

1 When you first arrive in Inazuma, you'll be stuck on the island of Ritou. To unlock the ability to explore the rest of the region, and gain access to the Adventurer's Guild, continue with the Archon quest line until you're sent to Inazuma City.

MAPPED OUT

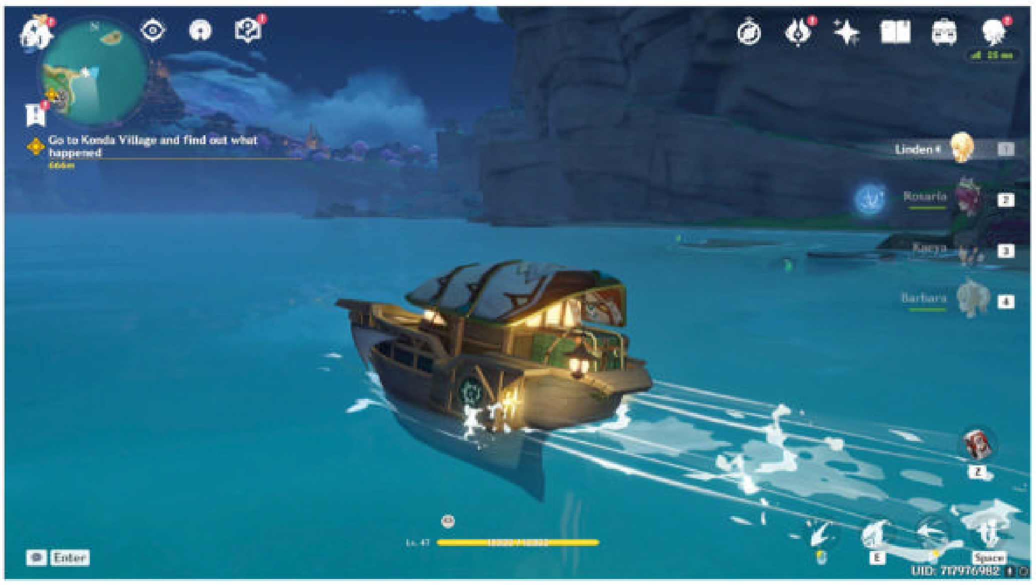
2 Find and activate the three Statues of the Seven across Inazuma to uncover the complete map of the entire region. You'll find one statue on each of the three main islands, and locating each will make getting around the area that much easier.

LENS FLARE

3 Make sure you complete the Sacrificial Offering world quest to pick up the Memento Lens. This is a new gadget in 2.0 that can reveal hidden objects at various locations across Inazuma and is helpful for solving certain puzzles.

OFFERING PRICE

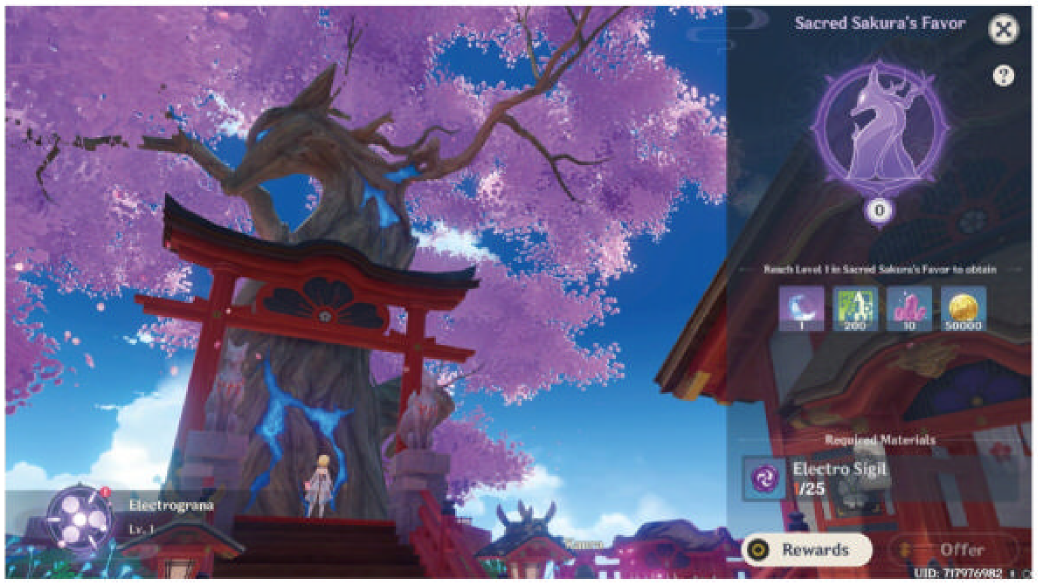
4 Like the Anemoculi and Geoculi from Mondastadt and Liyue, collecting Electroculi for the Statue of the Seven in the new region brings useful rewards. Some are hidden away, but others can be found easily as you explore.



Go to Konda Village and find out what happened

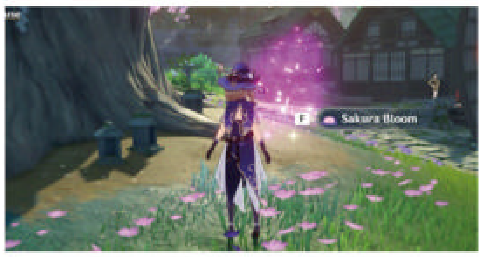
THE BOAT

5 If you took part in the Midsummer Island Adventure, you'll already be familiar with Waveriders. You can use these boats to get to the smaller islands, and they can be summoned at Waverider Waypoints dotted around the coasts of Inazuma.



TALL TREES

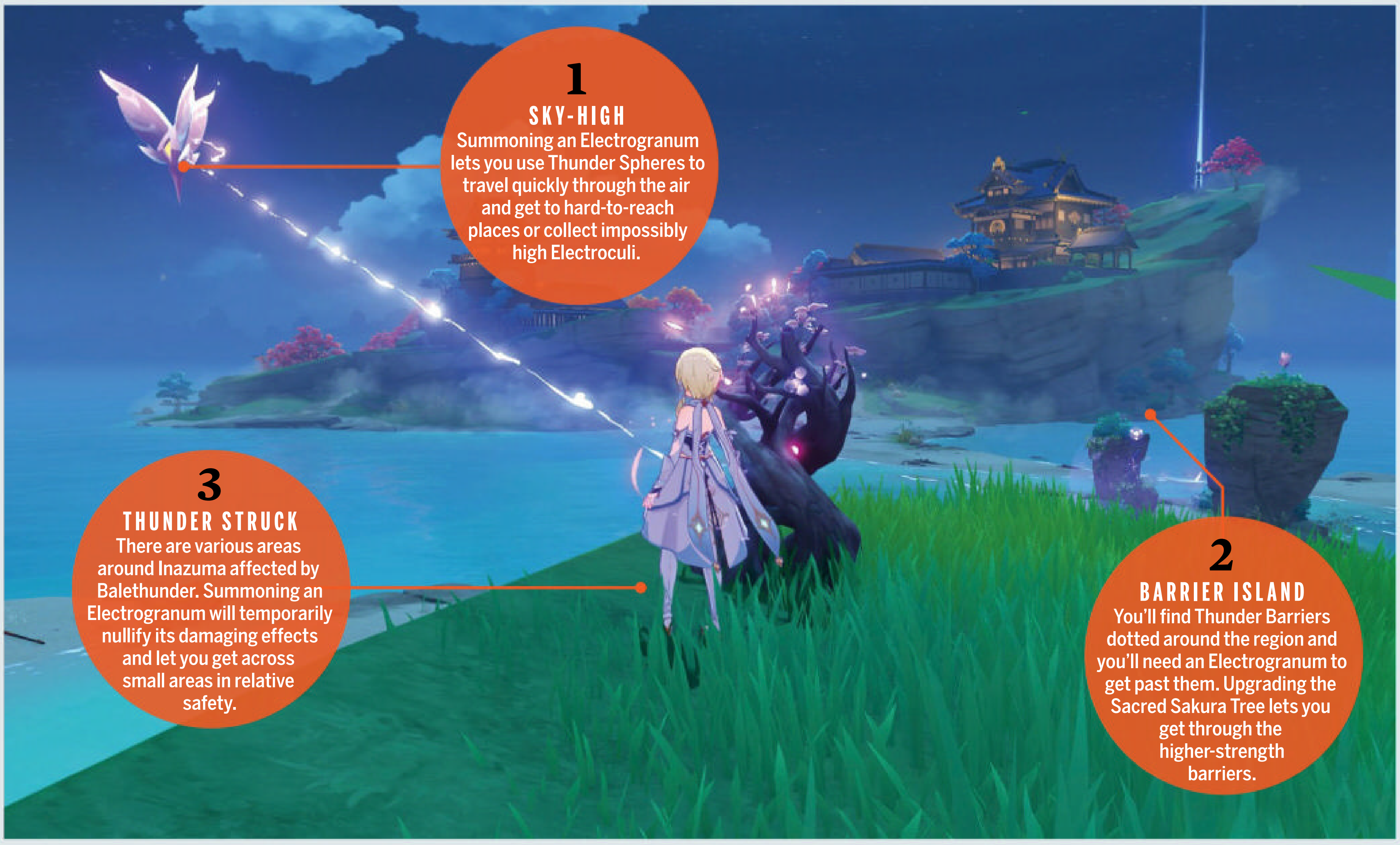
6 Start upgrading the Sacred Sakura Tree as soon as you can as this will enhance your Electrogranum abilities. You'll collect the Electro Sigils needed from chests, one-time domains, and by upgrading the Statue of the Seven in Inazuma.



SOURCE MATERIAL

7 With a new region come new plants and minerals, ranging from ingredients for recipes to character Ascension materials. Not all have a use yet, but keep an eye out for Sakura Bloom if you've managed to snag new character, Ayaka, as it's her Ascension material.

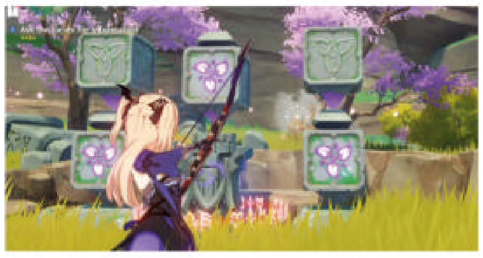
ELECTRIC CITY *Learn the different uses for Electrograna in 2.0*



1
SKY-HIGH
Summoning an Electrogranum lets you use Thunder Spheres to travel quickly through the air and get to hard-to-reach places or collect impossibly high Electroculi.

2
BARRIER ISLAND
You'll find Thunder Barriers dotted around the region and you'll need an Electrogranum to get past them. Upgrading the Sacred Sakura Tree lets you get through the higher-strength barriers.

3
THUNDER STRUCK
There are various areas around Inazuma affected by Balethunder. Summoning an Electrogranum will temporarily nullify its damaging effects and let you get across small areas in relative safety.



LEG WORK

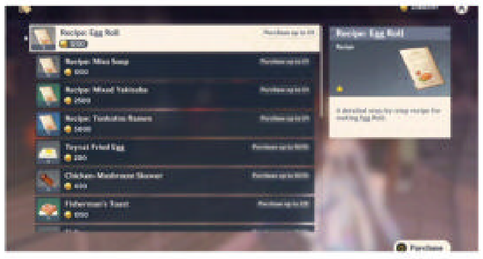
8 You might be tempted to teleport around Inazuma to cut down on travel time, but you could miss out on some chests, puzzles, or other points of interest. Take some time to explore those obscure places – you never know what you might find.

CANNON FODDER

9 Pick up the Tatara Tales world quest in Kannazuka to unlock the cannons located in the area. They can destroy breakable walls, so these cannons are needed to access certain secrets. You may even find a domain hidden away.

CHARGED UP

10 Shortly after arriving in Inazuma, you'll find the first Statue of the Seven in Ritou. Once attuned, the Traveller can unlock their Electro talents and Constellations, giving you more possibilities when it comes to making an effective team.



WHAT'S COOKING?

11 You'll pick up new recipes naturally as quest rewards, or from chests and events while out exploring. But it's always worth checking out the local shops and food vendors for any others you may be missing.

GOOD STANDING

12 You might be keen to explore first, but crack on with the Archon questline until you unlock the The Commission's Commission world quest. This grants access to Inazuma's reputation system, and unlocks requests.

EAST MOVES WEST IN

TOTAL WAR: WARHAMMER II

PART I

Can stubborn dwarfs colonise the far side of the world? *By Matt Elliott*

There is such a thing as a dwarf ranger, but they're viewed with suspicion. In dwarf society, all that sun and fresh air is considered bad for your health. So the idea of taking an army from the cool, comforting holds of the World's Edge Mountains all the way to the westernmost part of the Mortal Empires map in *Total War: Warhammer II* is a fool's errand. Only a wazzock would contemplate such a thing. I'm proud to say I am that wazzock.

First, I need to pick a goal. I choose the Fallen Gate, a savannah settlement on the western fringe of the map with a climate inexplicably suitable for dwarfs. This involves a bit of planning, which feels like cheating, but it's a necessary concession. In my head, it's an ancient dwarf myth: a new world suitable for the sons of Grungni, where smooth stone sleeps under jungle fronds. There are other rules to establish. It would be easy enough to amass a huge force led by a powerful character and flatten whatever unsuspecting race we find holed up at our destination. But there's no way High King Thorgrim Grudgebearer would take this journey; that would be like your racist brother-in-law holidaying further east than Great Yarmouth. Instead, he'll stay behind and maintain our second objective: ensuring my capital, Karaz-a-Karak, stays out of wretched orc hands.

This is a travel diary, then, but we need to do some housekeeping. I must secure the local area, reclaiming The Pillars of Grungi and Mount Squighorn, then move east to take Mount Silverspear, an abandoned settlement that will serve as my starting point. I hope it isn't infested with skaven. I also have to upgrade my holds and amass the resources I need to recruit a competitive force. There's no point crossing the entire map with an army of capering beardlings only to fall short at the final battle.

I investigate Mount Silverspear. It is, of course, infested with skaven. Flushing away their filth is easy enough, but it does mean I have to declare war on another faction. Not ideal. I recruit a new lord here, in line with rules one and two, but I'm not intending to retain control of this area. The dwarf leading my expedition is Yadri Growlsh. He's solid, simple, reliable. The Volvo of fantasy figureheads. He sets off from Mount Squighorn, knowing he'll likely never see his home again (not least because the skaven will take it back in about three turns). Axe slung over his shoulder, Yadri begins the long journey east, which, if I'm honest, will involve an extended stay at Karaz-a-Karak while I muster his throng. It's something of a false start, then, but if the Fellowship can spend months at Rivendell, Yadri's allowed to linger at Everpeak while his army assembles.

THE RULES

1. My lord must travel from Mount Silverspear to the Fallen Gates.

2. My army can't be led by a special character.

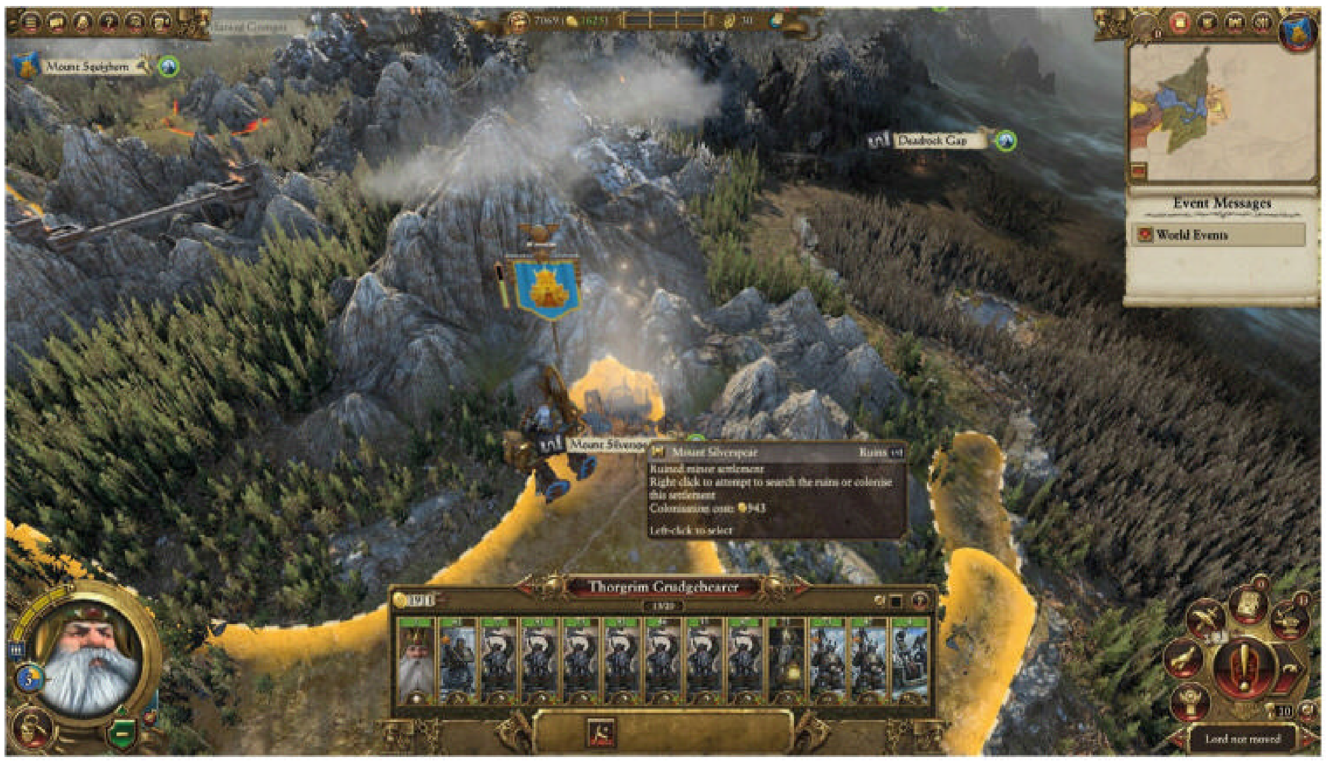
3. My capital, Karaz-a-Karak, must survive.

HIKE AND SHOT

Like packing to go on an extended city break, I'm being extra cautious. But instead of including spare chinos and wrapping everything in tissue paper, I've decided to take two cannons. Nobody of sound mind would drag a cannon across the entire map. So imagine how surprised my enemies will be when I turn up with two. It's genius. I give them runic dwarven names I probably shouldn't share because a) it's against dwarf laws to translate Khazalid and b) I don't want you to wedgie me, but here goes: Rinn Vengryn ('Lady Vengeance') and Dal Gnol ('Old Reliable'). I built a brewery during my period of consolidation, which lets me recruit Bugman's Rangers. On the long, parched journey that lies ahead, I like to think these ale-swigging dwarves will offer a taste of home for our intrepid heroes. My army is rounded off by The Growlsh Grumblers – a unit of moaning Longbeards who don't really want to go on the journey, but are dragged along to keep the beardlings in check.

NOBODY OF SOUND MIND WOULD DRAG A CANNON ACROSS THE ENTIRE MAP

Just as I'm about to set off, something unexpected happens: I complete a quest that awards me with a new runesmith called – wait for it – *Dramar Growlsh*. This can only be the ancestor gods telling me that Yadri's bookish older brother is destined to join the quest. We don't know what we'll find in the east, but we know it's the province of (ugh) magic users, so Dramar's skill in dampening enemy spellcasters – be they dark elf, lizardman, or worse – will come in useful.



Mount Silverspear Ruins
Ruined minor settlement
Right click to attempt to search the ruins or colonise this settlement
Colonisation cost: 943
Left-click to select

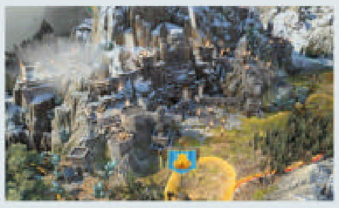
I feel a sense of genuine excitement as my army crosses the threshold and leaves their homeland behind. We wave goodbye to Thorgrim Grudgebearer – well, it's more of a curt nod, really – who stays behind to guard Karaz-a-Karak. I leave him just enough troops to keep things running. Money is going to be an issue because it costs loads to keep two decent-sized dwarf armies, and I haven't expanded far, instead choosing to upgrade what I've got.

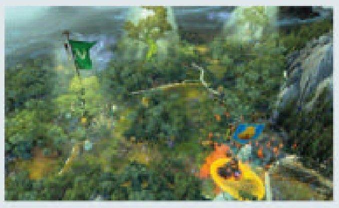
Yadri's Rangers pass settlements full of spider-worshipping goblins, and soon reach the realm of the Border Princes – haughty humans that too often end up being an additional distraction in dwarf campaigns. I manage to pass them without event, though, and even make time to negotiate a new trade

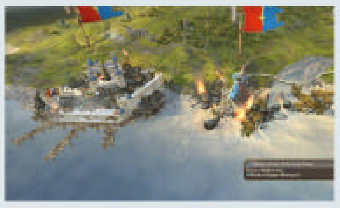
»

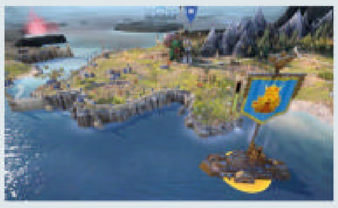
Armour
Speed
Range

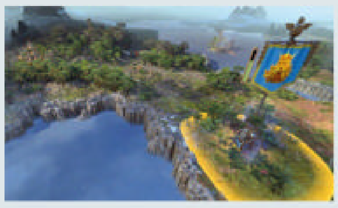
POSTCARDS FROM THE WORLD'S EDGE *Wish you were here?*


"Leaving Karaz-a-Karak. Is it too early to send a postcard? Also, I forgot my lunchbox, what am I going to eat now?"


"Athel Loren. Hate it. Hard to breathe the fresh, leafy air and the trees keep giving my axe funny looks."


"My first trip in a Dreadnought! It's like being inside an Ironbreaker who can float. Not as bad as it sounds."


"Sailed past Ulthuan, where even the mountains look weak and elfy. Don't bother unless you're invading."


"Finally arrived! It's flatter, hotter, and greener than expected. Can I come back home now?"

deal on the way past. I pass other lowland dwarf holds and strike non-aggression pacts. Where possible, I also push for military access. Races don't take kindly to trespassing in *Warhammer II*, plus I like to think of my dwarf brothers waving me by as we trudge to our destination, like the world's slowest, least-fun fun run. Perhaps 'grumble strut' is more accurate.

I take the route through The Vaults, an area of ice-cut valleys and towering cliffs that forms the junction between the Black Mountains and the Grey Mountains. It's also the home of my dwarf brethren from Clan Angrund, although they're not especially keen to see me, probably because of the trespassing, enmity, and siege weapons. From here, I have a choice: northwest, through the horrible wood-elf forest of Athel Loren, or southwest through Tilea, on a potentially longer journey. I decide to go through the woods, because I know the elves will hate it, and the thought of that delights me.

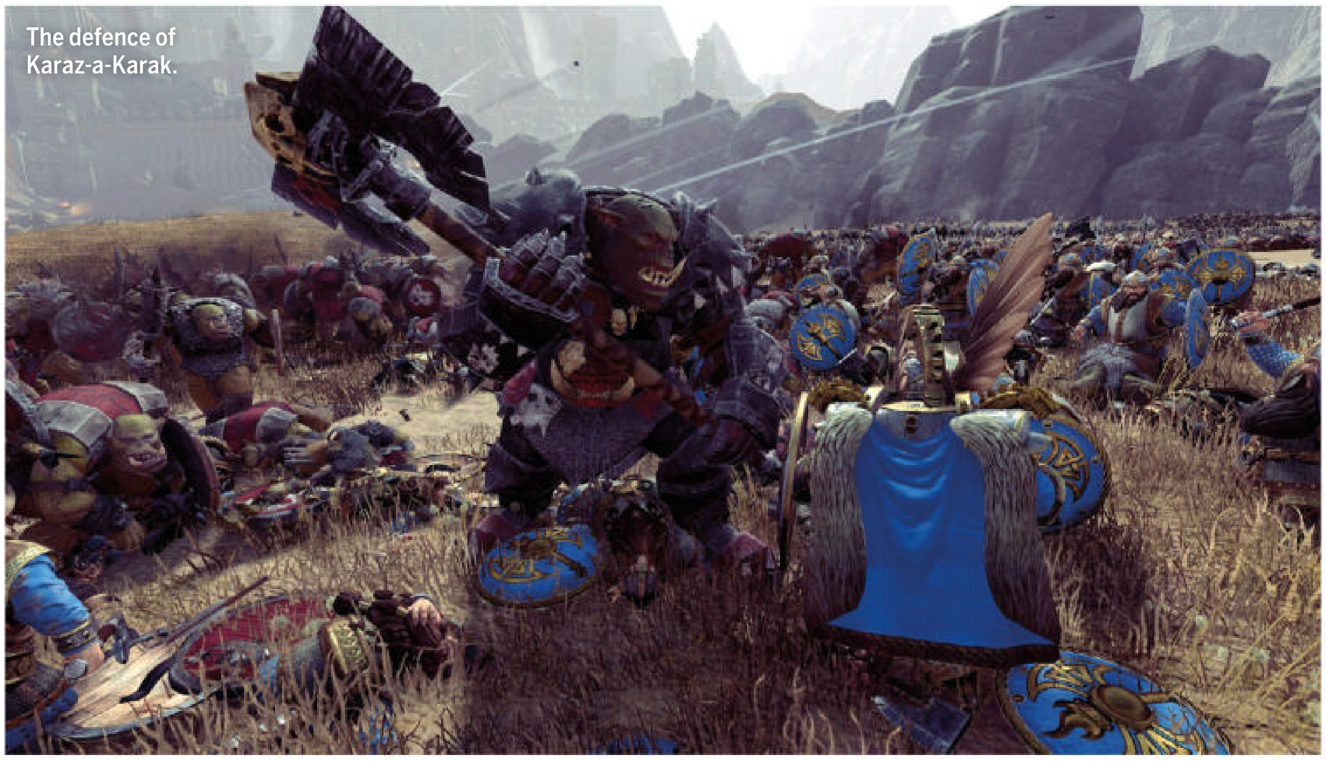
It's around now I realise that things at home aren't great. I've dealt with constant minor incursions, but the powerful Black Orc Warboss Grimgor Ironhide is lurking about to the west of Karaz-a-Karak. I rush the High King back towards the capital, knowing that a siege battle would favour me. I'm too late. Grimgor attacks before I can get inside the city walls, but my army is close enough that reinforcements arrive from inside. It's a massive battle – one that sees both Grimgor and Thorgrim wounded – but even though I win, it leaves me in a perilous position. My roaming army is too depleted to see off any other serious threats, and my coffers are running dry. Army upkeep is crushing me, so I have to make a hard choice: some of Yadri's Rangers will never reach the Fallen Gates. I say goodbye to a unit of Slayers and, more tragically, one of my beloved cannons. The only thing that makes me feel better is pretending I flytipped it in the stupid wood-elf forest. At least it's not a mattress, lads.

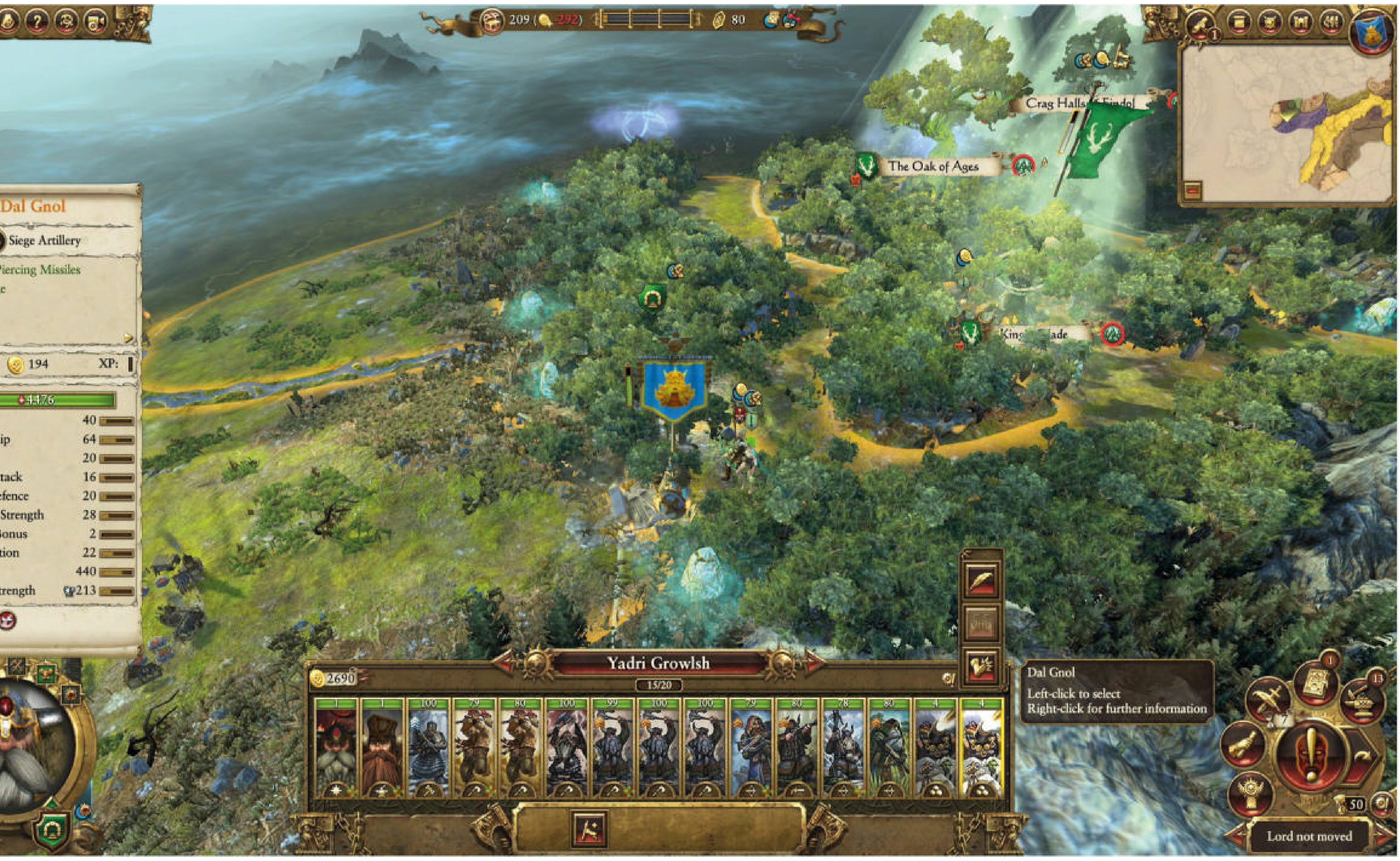
ELF RISK

In typically melodramatic overreaction, the wood elves declare war on me – I guess they found Dal Gnol – but they're too late. Yadri reaches the coast, and is ready for the last big challenge in his journey: crossing the sea to reach the New World, sailing past the high-elf homeland, ideally while shouting rude things out the portholes of our dreadnaught. And it's a good thing, too. Time is getting short. My diminished forces in the east can no longer hold back the green tide. My settlements start to fall, and money gets even tighter. I'm in negative growth and don't have enough cash to recruit a new army. I bunker up in my capital city and hope that the high-tier garrison there is enough to weather any orc attacks. Another greenskin army arrives, led by Gorfang Rotgut, and lays siege to Karaz-a-Karak. I have to hope they don't attack before Yadri reaches the Fallen Gates. Thirteen turns. It's going to be very tight.

I'm barely at Ulthuan before Gorfang assaults the city. Yadri doesn't know it, but back on the other side of the world, his homeworld is on the brink, and the mission hangs in the balance. The only unit I have aside from the garrison is Thorgrim himself. It's enough. Gorfang's attack breaks on the walls of Karaz-a-Karak, but it's a close victory – I'm not sure the city would take another attack from a larger force.

Meanwhile, Yadri sails past Ulthuan, pausing only to laugh at the repulsive river troll hag that seems to be harassing the capricious elvish waifs. I'd be enjoying this sightseeing tour much more if the future of dwarf civilization wasn't hanging from a beard hair. And, to make matters worse, just as I'm about to reach the other side of the map Grimgor Ironhide calls a Waaagh! against Karaz-a-Karak. It's now a case of not *if* the city will fall, but *when*. I have enough gold and resources to upgrade the city to the next level. If I


The defence of Karaz-a-Karak.



> **AS I'M ABOUT TO REACH THE OTHER SIDE OF THE MAP, IRONHIDE CALLS A WAAAGH!**

can do that, the garrison will increase and Everpeak might last long enough for Yadri to reach his destination.

MOUNTAIN MEN

To the east of Karaz-a-karak, Mount Squighorn is overrun. It's just the capital city left. Grimgor's Waaagh! arrives, and the final siege of Karaz-a-Karak begins just as Yadri strikes ground in the New World. It's going to come down to a single turn, like the last ball in an excruciating game of cricket; one that includes goblin doomdivers and snotling pump wagons. Yadri steps into the sweltering fug of the Isthmus of Lustria, the northernmost part of the jungle continent, surrounded by strange idols and mystifying lizardmen. The race is on to reach the Fallen Gates, and I still don't know what waits for me there or if my depleted, attrition-ravaged army will be strong enough to take the city. At the end of every turn, I find myself wincing as the factions spin past at the top of the screen, praying it doesn't stop on Grimgor's 'Ardboyz, signalling their final attack on my capital.

I'm one turn away from the Fallen Gates when it begins. An overwhelming force marches on Karaz-a-Karak. It's an epic fight, but an impossible one. Eventually Thorgrim himself falls, felled by a black orc warboss at the city gate. The quest has failed. The next turn, Yadri, marches on the Fallen Gates and takes on its lizardmen defenders. It's an even fight, but one that goes my way, largely in part to Rinn Vengryn, which batters the heavily armoured saurus troops before they can reach me. Part of me imagines what I could have done with two. Another part asks if I'd have succeeded if I left sooner. The Fallen Gates are mine, but the greatest dwarfhold in the Old World is lost. Maybe it's time for Yadri to go home... ■

TOP: Nothing feels quite as good as leaving a horrible forest.

LEFT: Are lizardslayers a thing? They are now.

FAR LEFT: The newly-established dwarfhold of the Fallen Gates. Probably the capital now...

VOXELS

Who needs polygons when you have blocks? *By Joseph Knoop*

LEFT: Tasty fish.

Rather than learning to make bread, my desperate quarantine hobby turned out to be learning voxel art. Using the fantastic MagicaVoxel software, I went from building abstract animals to building illuminated *Dance Dance Revolution* machines, quaint Japanese storefronts and even the subway tracks outside my apartment. Most importantly, voxel art has given me an appreciation for the amount of work that goes into a game's visual design, especially when it's consciously constrained, not necessarily sacrificing style or substance. From trendsetters like *Minecraft*, to physics experiments like *Teardown*, to narrative adventures like *Cloudpunk*, voxel art has changed the way I look at almost everything I play.

If the last year has taught us anything, it's that many game devs shoot for the moon, but also like Jeff Bezos, barely manage to get anywhere while blowing big bucks.

As a lowly courier driving a floating car through a Blade Runner-esque city, *Cloudpunk*'s voxel art buildings are stunning despite having nowhere near the polygon count of that other cyberpunk game. If there's one thing voxels are good at doing, it's making low-poly scenes look beautiful from a distance. As I drive by giant neon advertisements for ramen and corporate security firms, little blocks of light a few hundred yards down hint at the life and squalor the city's lowest classes trek through each night. A street sweeper robot scuttles by a food stand, while a junkie hocks his wares and a gentleman of the night takes a drag of his cigarette outside a dimly lit diner.

Of course, zoom in close enough and the food stand's produce is just a mix of orange and green blocks, the butcher's knife is a simple square affixed to a brown stick, and the smoker is lifting a single lit cube up to his face. Really, it's unfair how well voxel art works with the cyberpunk aesthetic in particular. The genre has always had a focus on imposing scale, with skyscrapers towering far beyond whatever our working class hero can afford, seemingly alien or godlike obelisks. Even at street level, cyberpunk stories are often so packed full of human and mechanical detritus that it's more important to focus on the shape of something rather than the details. Voxel art makes an artist ask, "What do I emphasise here? What sells the silhouette of something when I know I can't make something bigger than 40x40?" When you're just another cog going about their life, people tend to turn into vague shapes rather than highly defined things.

VOXEL ART MAKES AN ARTIST ASK, "WHAT DO I EMPHASISE HERE?"

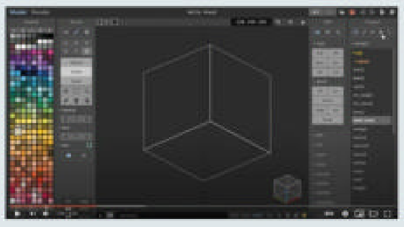
DEMOLITION DISC

But take something fairly pedestrian like *Teardown*, the physics sandbox heist game that achieves a level of destruction Battlefield could only dream of. At its heart, it's a game about shapes, and destroying those shapes to get at what you want. Despite the voxel format, there's never any mistaking that you're looking at a mansion or a bulldozer, and those rudimentary shapes crumble in such a way that even my modest CPU struggles to comprehend.

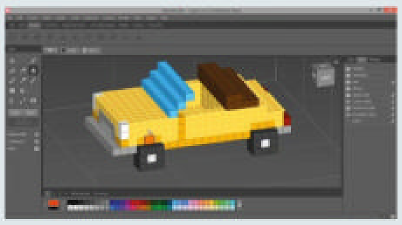
But take it from me, voxel art can quickly get away from you. When my interest in voxels eventually turned into cracking open Aseprite, a very nice pixel art creation tool, my first real piece was of a very pleasant beach, Bob Ross clouds and all. The problem was that as I went along, I kept broadening the dimensions of my beach, to the point where it wasn't obvious it was pixel art until you zoomed in, and not in a good way. The result felt like a middling Microsoft Paint doodle.

That feeling of overconfidence, of overstretching my canvas before I've learned to paint, is something I can't ever forget now looking at a game. Style can occasionally win over substance if that style works in service of a clear and meaningfully restrained vision. Each time I see the kids my partner and I babysit, the five-year-old boy has constructed a new set of houses, or a castle, or a giant underwater spaceship. Each time, he's getting more confident and maybe one day he'll get frustrated and knock it all down. But he's working with the best tools possible, these shapes that can do anything. ■

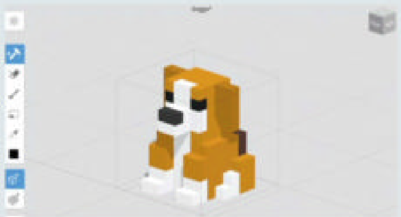
OUTSIDE THE VOX *Software for making voxel magic*



MAGICAVOXEL
A free, lightweight option that's great for static art pieces. Gets regular updates and has a great community. Did I mention it's free?

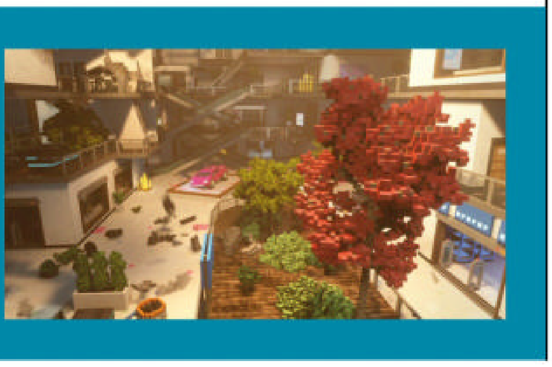


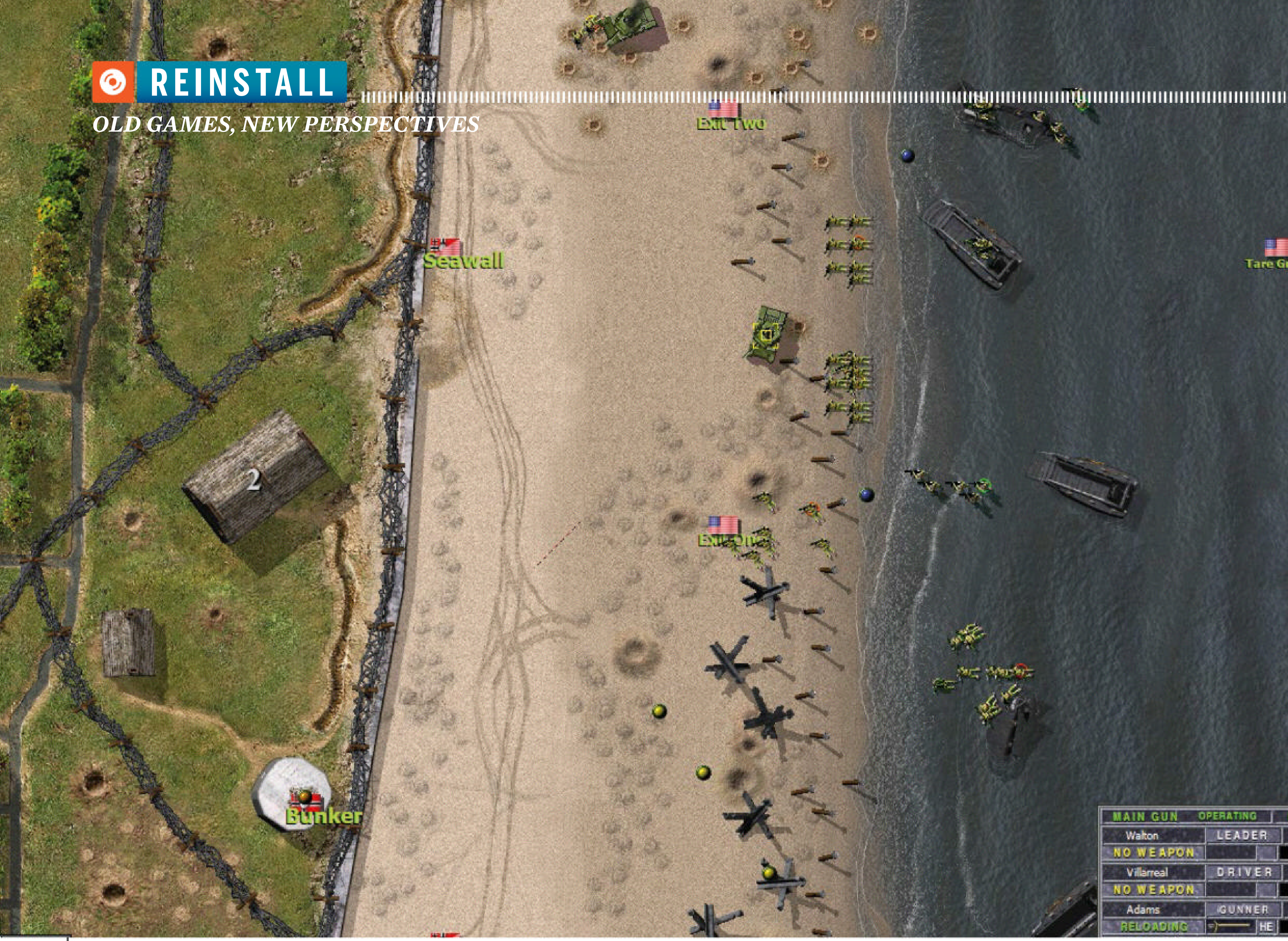
QUBICLE
Used for games like *Crossy Roads*, *Trove*, and the upcoming fishing town life sim *Moonglow Bay*. Great for character creation.



MEGA VOXELS PLAY
A mobile app for simple voxel art creation. Works well with other software and even has a shop section to find new models.

LEFT: Digging it.





CLOSE COMBAT V: INVASION NORMANDY

Twenty years later, this RTS is still just as innovative. *By Steven Messner*

During the frigid Canadian winters, the forest behind my house became a battlefield. Every night I'd meet my friends there and distribute our collection of toy guns and then we'd reenact the scenes we had seen in war movies. I vividly remember sitting in the snow, back against a tree, pretending I was pinned down by my friend who was now a German sniper. I was ten years old and blessed with an absurdly active imagination. Immersion was everything, so crawling for an hour through freezing slush just to get to safety was not out of the question.

This was just one of the ways my childlike fascination with war manifested itself. Between gory drawings of battlefields or watching what few WWII documentaries I was allowed to see, ten-year-old me was obsessed with the thrill and glory of battle. Naturally, that troubled the hell out of my parents, who knew that war wasn't glamorous or cool. But despite them trying to tell me otherwise, that realisation only hit me the first time I booted up *Close Combat* on our family PC. This real-time strategy game was unlike any other I'd played, and it quickly taught me that war is a lot more horrifying than my kid brain could comprehend.

TOP: Landmines make beach landings a nightmare.

Reinstalling *Close Combat V* today, it's funny that I initially found its low-res battlefields so harrowing. But even if its graphics haven't aged well, there's still something unique and innovative about one of PC gaming's forgotten real-time strategy games.

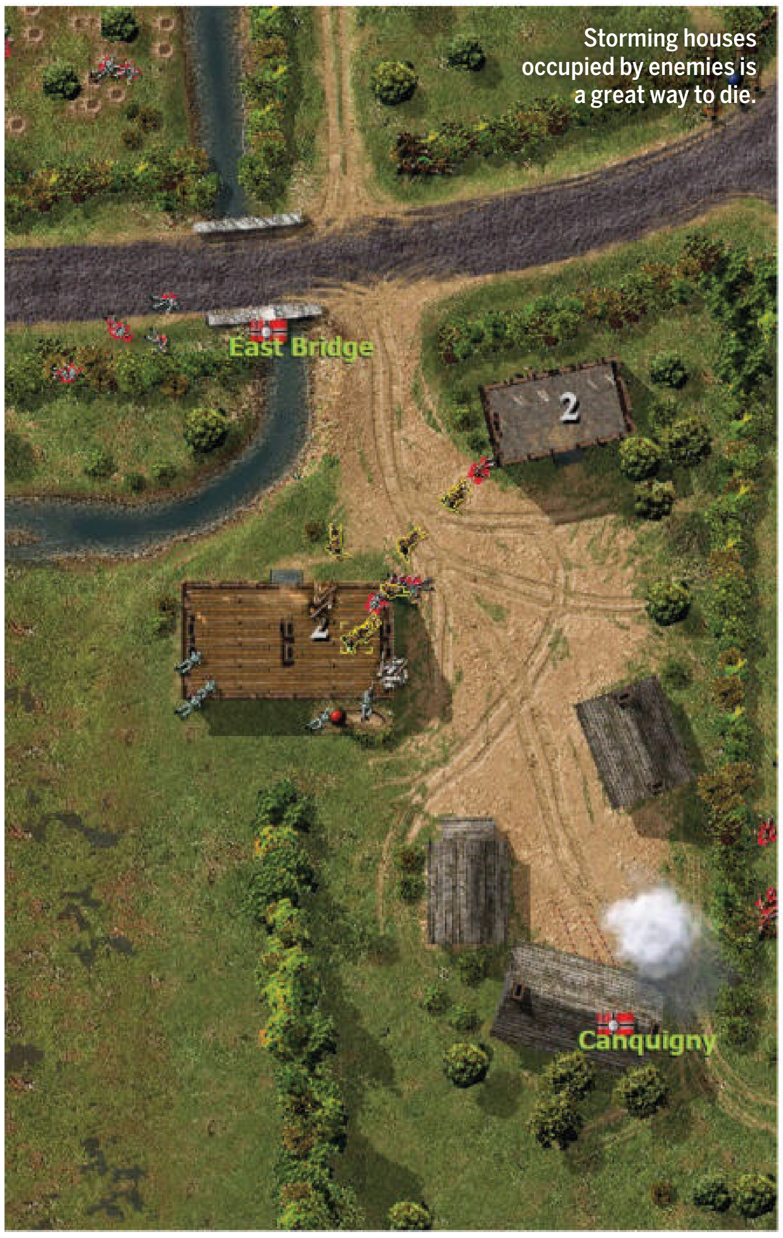
INTO THE BREACH

Unlike most strategy games of the late '90s and early '00s, *Close Combat* goes to great lengths to simulate WWII-era combat. There are no bases to build or resources to harvest, just dozens of platoons to manage as they slowly crawl across war-torn Europe, engaging in intense firefights. Years of *Command & Conquer* had taught me that my units were easily replaceable – clones endlessly churned out of a factory or barracks tucked into some corner of the map. So, like an idiot, my first move was to select my entire army and move them straight into the centre of the town we were fighting in to take one of the map's many capture points. No other

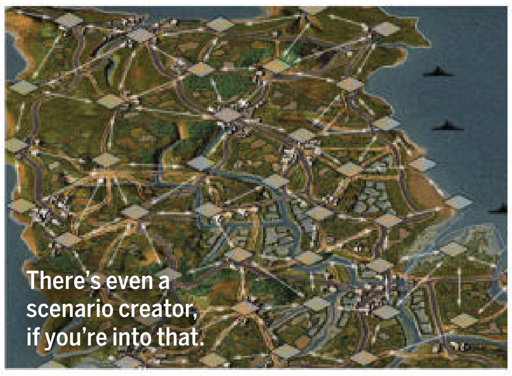
NEED TO KNOW

RELEASE October 2000	**DEVELOPER** Atomic Games
PUBLISHER Mattel Interactive	**LINK** bit.ly/2ViLhqN

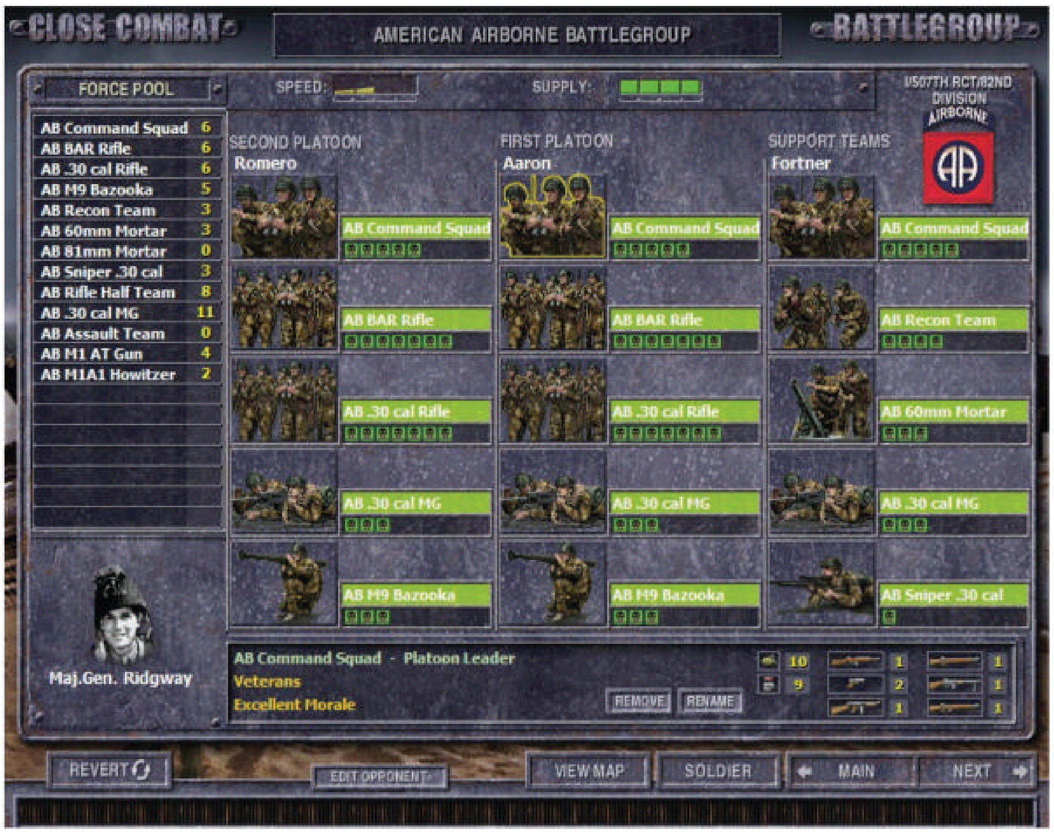
MOBILE
HEALTHY
0 rnds.
HEALTHY
0 rnds.
HEALTHY
18 rnds.


East Bridge
2
Canquigny

Storming houses occupied by enemies is a great way to die.



There's even a scenario creator, if you're into that.


CLOSE COMBAT
AMERICAN AIRBORNE BATTLEGROUP
BATTLEGROUP
FORCE POOL
SPEED:
SUPPLY:
I/507TH RCT/82ND DIVISION
AIRBORNE
AA
SECOND PLATOON
Romero
FIRST PLATOON
Aaron
SUPPORT TEAMS
Fortner
AB Command Squad
AB Command Squad
AB Command Squad
AB BAR Rifle
AB BAR Rifle
AB Recon Team
AB .30 cal Rifle
AB .30 cal Rifle
AB 60mm Mortar
AB .30 cal MG
AB .30 cal MG
AB .30 cal MG
AB M9 Bazooka
AB M9 Bazooka
AB Sniper .30 cal
Maj.Gen. Ridgway
10
9
1
2
1
1
1
1
REMOVE
RENAME
REVERT
EDIT OPPONENT
VIEW MAP
SOLDIER
MAIN
NEXT

FORCE POOL	
AB Command Squad	6
AB BAR Rifle	6
AB .30 cal Rifle	6
AB M9 Bazooka	5
AB Recon Team	3
AB 60mm Mortar	3
AB 81mm Mortar	0
AB Sniper .30 cal	3
AB Rifle Half Team	8
AB .30 cal MG	11
AB Assault Team	0
AB M1 AT Gun	4
AB M1A1 Howitzer	2

AB Command Squad - Platoon Leader
Veterans
Excellent Morale

ABOVE: You can customise platoons to try to counter enemy formations.

RTS had required me to carefully position my units, so I was completely unprepared for *Close Combat*'s more simulated approach.

When German assault squadrons opened fire, I realised my mistake. Amid sharp cracks of gunfire and horrifying screams, individual soldiers were cut down by the dozen. Those that survived quickly panicked and began to retreat while others just huddled on the spot – the UI readout telling me they're 'cowered' or 'pinned' – waiting for their turn to catch a bullet. The firing soon ceased and ten-year-old me stared blankly at the bloody corpses of several dozen dead soldiers. I had sent them all into the meat grinder and those that survived were now too broken to fight.

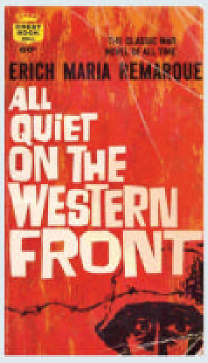
UNITS WON'T JUST BLINDLY FOLLOW ORDERS LIKE IN COMMAND & CONQUER

This remains *Close Combat*'s best and most interesting feature. Units won't just blindly follow orders like in *Command & Conquer*, but will also consider the context of that order. Command a squad to charge a fortified enemy position and they'll probably just tell you to get stuffed and sit right where they are, bursting with morale. Or if I order a squad to bail out of a house currently being shelled, there's a good chance some soldiers might be too shell-shocked to follow their comrades. Squads can even become separated in these situations, further adding to the realism and chaos of war.

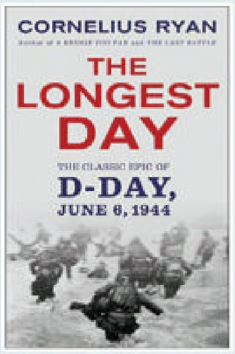
All this depth was mind-blowing to ten-year-old me, and today it still feels remarkably innovative. Instead of health being a binary state between alive and dead, my squadrons feel like they are made of real people. People who can become scared and flee combat, or can become wounded and spend the rest of the battle squirming in a pool of

WAR STORIES

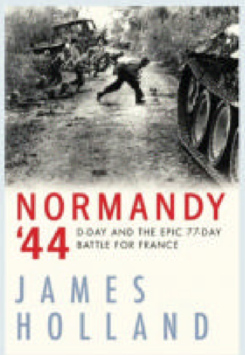
Novels that tell a soldier's perspective of war


ERICH MARIA REMARQUE
ALL QUIET ON THE WESTERN FRONT

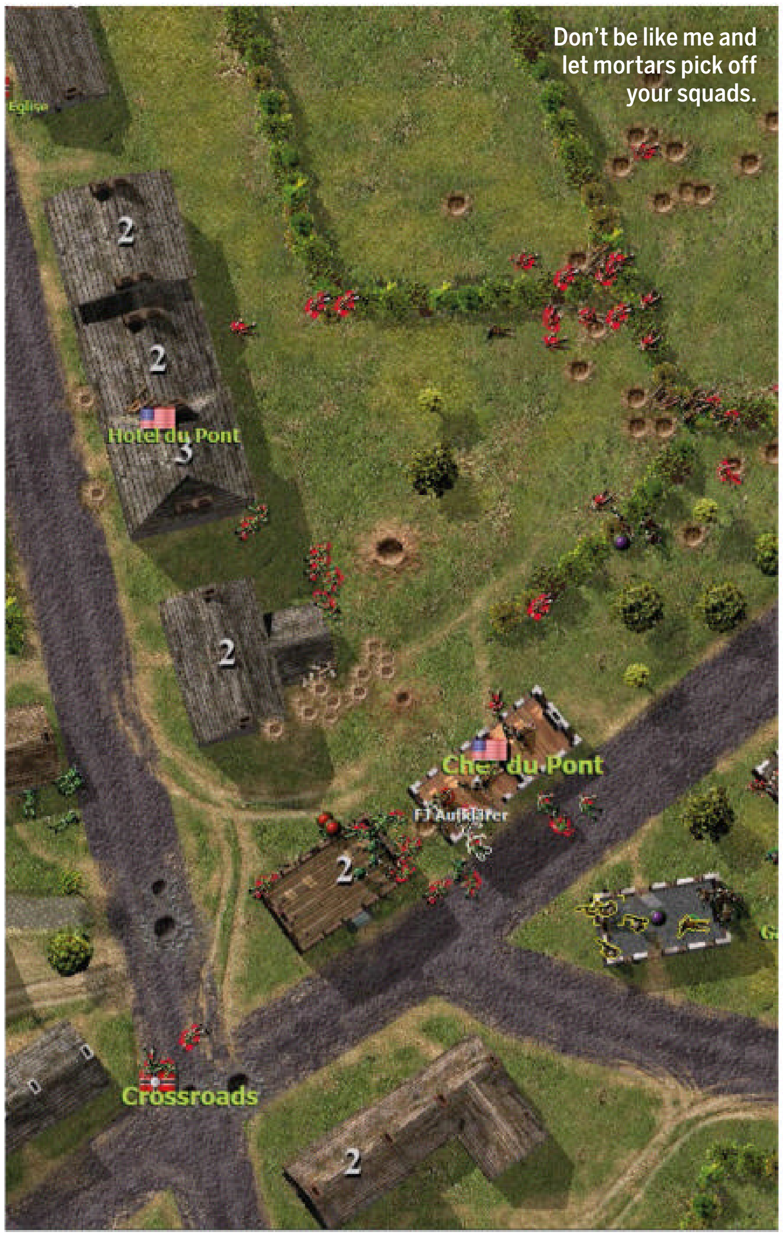
ALL QUIET ON THE WESTERN FRONT
ERICH MARIA REMARQUE
A haunting fictional account of a German soldier fighting in WWI. It paints a picture of how war dehumanises people.


CORNELIUS RYAN
THE LONGEST DAY
THE CLASSIC EPIC OF
D-DAY,
JUNE 6, 1944

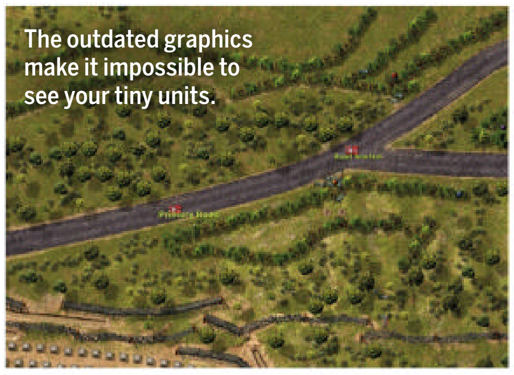
THE LONGEST DAY
CORNELIUS RYAN
Based on thousands of interviews and featuring 383 different personal testimonies, covering everything soldiers, officers, and civilians.


NORMANDY '44
D-DAY AND THE EPIC 77-DAY BATTLE FOR FRANCE
JAMES HOLLAND

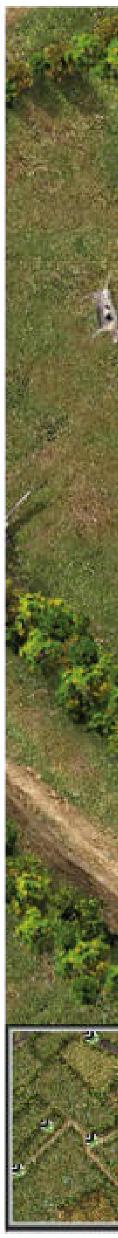
NORMANDY '44
JAMES HOLLAND
Covering the 77-day battle for France, this novel draws on first-hand accounts and focuses on the intense human story at the centre of Operation Market Garden.

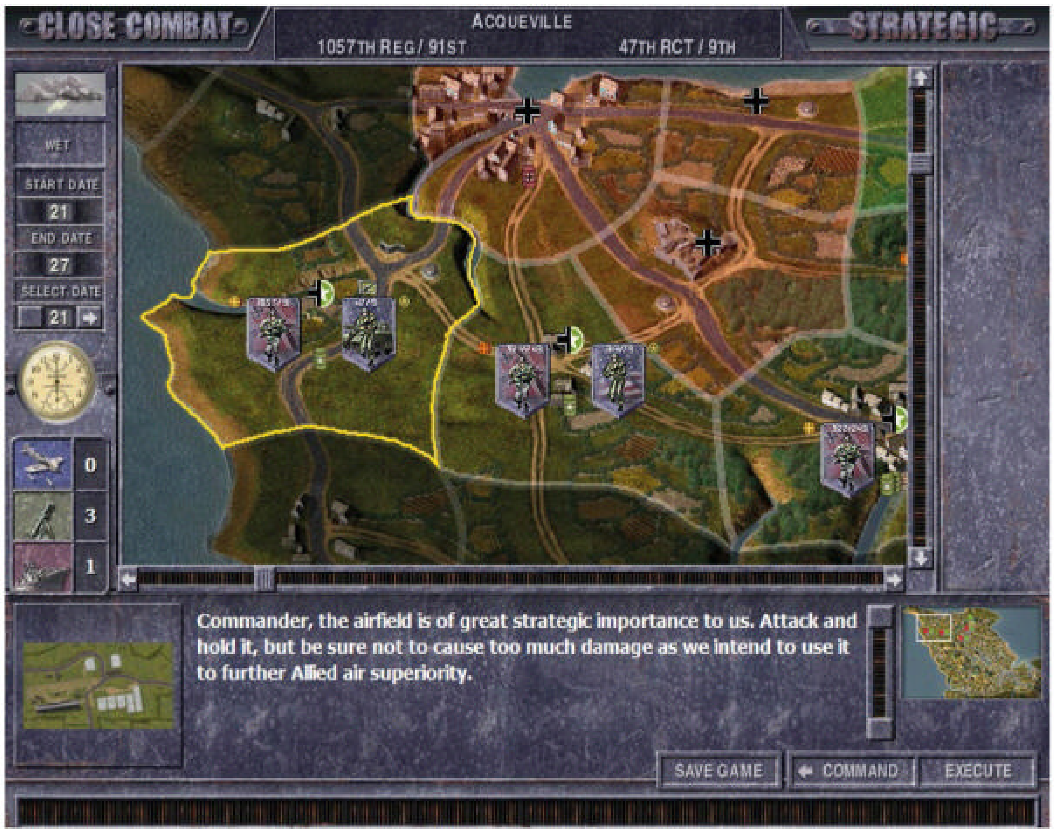


Don't be like me and let mortars pick off your squads.



The outdated graphics make it impossible to see your tiny units.





Commander, the airfield is of great strategic importance to us. Attack and hold it, but be sure not to cause too much damage as we intend to use it to further Allied air superiority.

ABOVE: Fights over contested areas rarely resolve in one turn.

their own blood among deceased comrades. That the game gives each soldier a name helps sell that these are more than resources to be expended in pursuit of conquest, and helps me track the survival of individual soldiers across a campaign.

It's a small (and somewhat morbid) touch, but I also love that corpses remain on the battlefield. A lot of RTSes from that era despawn bodies in order to keep the map readable, but that makes battles feel ephemeral. In *Close Combat V*, however, the story of iconic battles like Carentan is written by the clumps of dead soldiers that choke the streets after a fight.

That said, *Close Combat V* doesn't feel nearly as provocative as it did to me as a kid, being the little war worshipper that I was. There's still a visceral feel to its violence, but it wasn't long until I started hearing the same few screams repeated as more soldiers died. And while I'm genuinely shocked that the game even runs on modern hardware – at 1440p no less (it is letterboxed, however) – the graphics have definitely aged poorly. The static, pre-rendered maps do a great job of bringing to life the pastoral fields of Normandy, but individual units are too small and lack detail. It somewhat counters the intimacy afforded by *Close Combat V*'s deep simulation of individual soldiers.

BRIDGE TOO FAR

What surprised me about my return to *Close Combat V* is how stellar its moment-to-moment strategy still feels. Each battle is a race to control as many capture points on a map, but *Close Combat V* moves at a tense crawl. Units move slowly and carefully and have a high degree of autonomy when it comes to making their own decisions. My job is to give them general orders, like moving to a certain location or attacking a specific area, but soldiers will also make their own decisions in the heat of a firefight. They'll even scavenge weapons off of dead bodies if they run out of ammo (did I mention each soldier has their own ammo?).

Close Combat V strikes a near-perfect balance between giving me enough tactical options, like being able to order a unit to toss smoke grenades to conceal an advance, while still making the soldiers feel

WAR GAMES

The best WWII-era strategy games

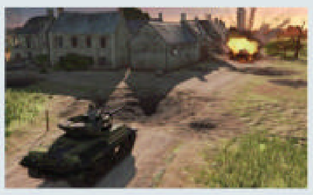
COMPANY OF HEROES 2

Get the *Ardennes Assault* DLC, which includes a dynamic turn-based campaign, and this becomes one of the most explosive and deep WWII real-time strategy games. **Our score:** 80

GERMAN REICH

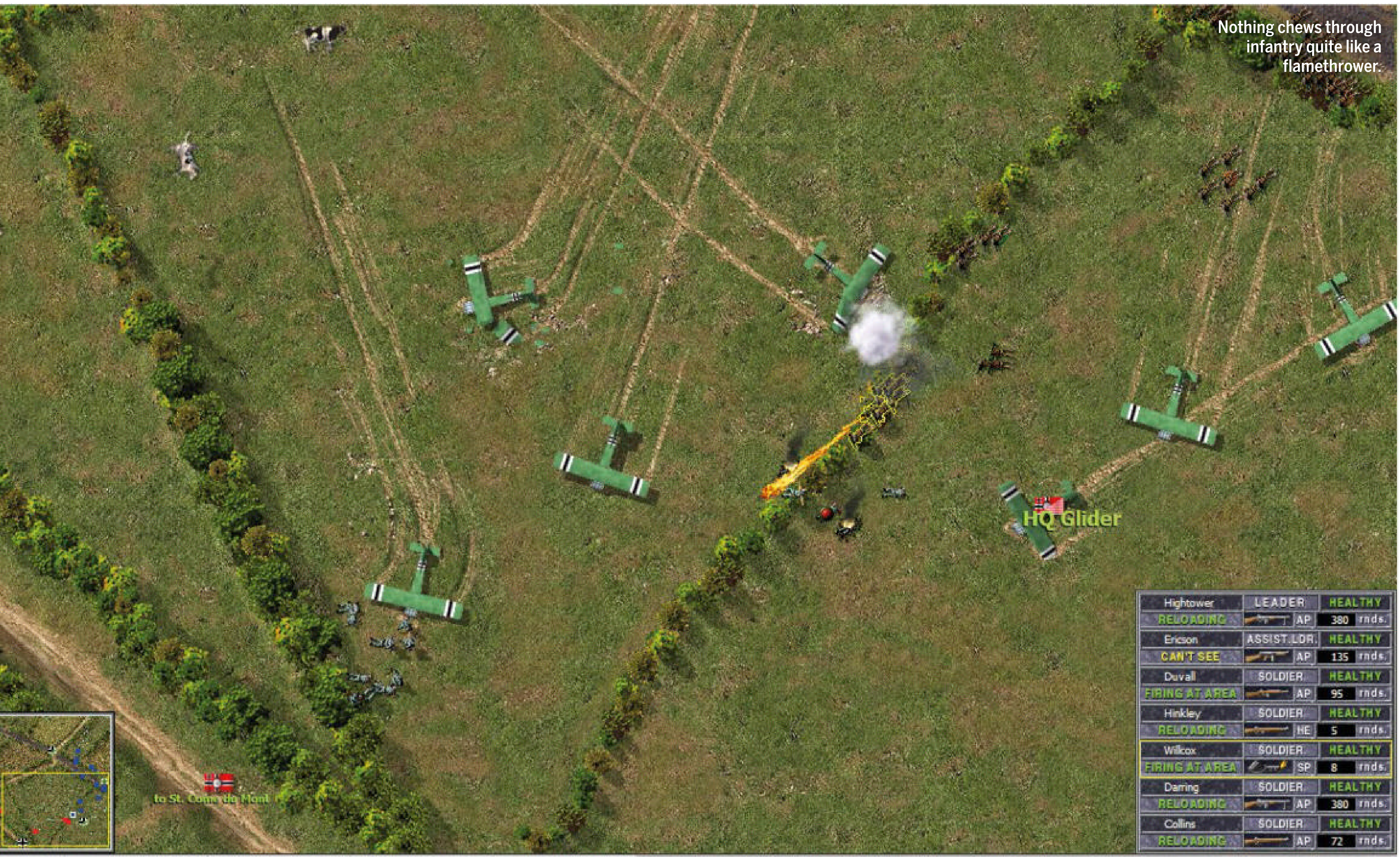
HEARTS OF IRON 4

An enormously deep wargame that lets you rewrite history and play as practically any country involved in WWII, *Hearts of Iron 4* is grand strategy at its best. **Our score:** 88



STEEL DIVISION: NORMANDY 44

Real-time battles with scope and a ton of options make this one heck of a hybrid between real-time strategy and traditional war games. **Our score:** 88



Nothing chews through infantry quite like a flamethrower.

like autonomous, thinking creatures I don't have absolute control over.

It's good that maps aren't all that big, because *Close Combat V* is a battle of inches. Most of the time, my eighteen squads (divided into three platoons), are crawling in the dirt trying to avoid enemy fire. Though it's technically a 2D game, *Close Combat V*'s simulation treats maps as if they are 3D environments with different elevation changes.

This can sometimes be frustrating because it can be hard to tell when the terrain might block a squad's line of sight. Trees, buildings and ditches are obvious, but more than once a flank was foiled because I didn't realise the enemy squads were protected by a slight hill. But I also appreciate how much it emphasises the need for careful positioning and proper infantry tactics.

I just wish there was a way to tell when squads were protected by cover or not. Natural obstacles like trees, bushes, and even downed planes can all be used as protection, but it's never quite clear if my units are properly concealed from incoming fire. I really wish there was a simple indicator, like the one in *Company of Heroes*, to show how safe my units are.

ALL THE COVER IN THE WORLD CAN'T PROTECT YOU FROM A GERMAN PANZER

All the cover in the world can't protect you from a German Panzer or a mortar, though. Again, it's wild to see how deep *Close Combat V*'s simulation goes with these units. Tanks, for example, are crewed by soldiers that each have individual roles to fill and also have several stages of disrepair. Treads can be busted, leaving a tank immobile, or the main gun can be disabled by incoming anti-tank fire. If the tank is destroyed outright, its crew will flee and take up arms as foot soldiers.

In an individual battle, all these elements feed into enthralling conflicts as platoons fight viciously over every bombed-out house or fallow field. But *Close Combat V* really shines when you jump into one of its Grand Campaigns, which let you simulate a full-scale invasion of Normandy over several weeks.

Echoing amazing sandbox campaigns like *Dawn of War: Dark Crusade*, Grand Campaigns dice Normandy up into two dozen battlefields that you fight over each turn. Managing several armies, including their resupply lines and reinforcements, adds even more depth to each battle. I love that individual soldiers persist through each fight, which makes me feel even worse when I make a bad call and get a squad of battle-hardened veterans slaughtered. There's also a lot of options to tweak in these campaigns. You can play as either German or American forces, but can also toggle different victory conditions and half a dozen other options that let you customise battles.

Playing *Close Combat V* today, though, just makes me sad that this series never seemed to keep its momentum. There are newer entries (and even overly-expensive remakes of *Close Combat V* and earlier games), but all of them seem to struggle in modernising the game or finding smart ways to expand the strategic options and challenge.

Even so, it's shocking just how enjoyable and playable *Close Combat V* is today. And though it's simulation of individual soldiers and their mental states isn't as revolutionary and eye-opening as it was to me as a kid, this is still a great World War II strategy game. ■

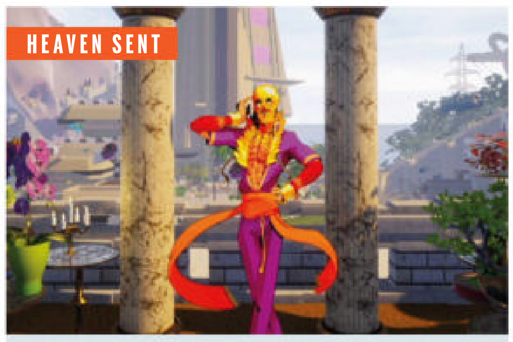
MUST PLAY

A PERSONAL LIST OF THE BEST GAMES YOU CAN PLAY RIGHT NOW

by Fraser Brown

FRASER BROWN

I played all of these games at the same time and unlocked the mysteries of the universe. Not worth it, to be honest. Play them one at a time like a normal person.

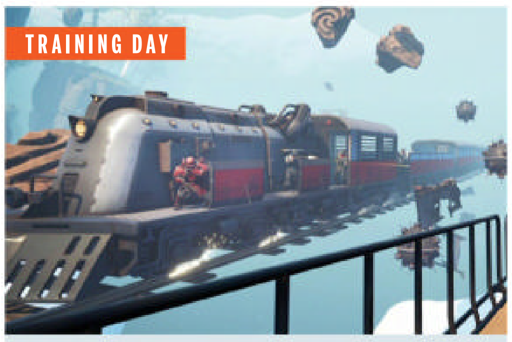


HEAVEN SENT

PARADISE KILLER

paradisekiller.com

→ The mystery of a violent massacre sits at the heart of this endlessly stylish and utterly bizarre detective romp set in a failed virtual heaven. I've bitten off more than I can chew trying to describe it in just 50 words, but it's brilliant and weird and you should play it.



TRAINING DAY

VOIDTRAIN

bit.ly/3kk1q7C

→ I've really only just started this train-based Early Access survival game, but I'm already fully on board. The infinite railway is suspended in the sky, where you'll fight sharks, explore surreal ruins, and shoot Nazis with up to three pals. This is what all train journeys should be like.

WELL BUILT

CITIES: SKYLINES

citiesskylines.com

→ I'm on a city builder kick once again, and I still haven't found anything that's quite as impressive as *Cities: Skylines*. After six years, it's still at the top. This time, I've packed it with sci-fi mods in an attempt to create a huge cyberpunk city that tanks my PC.

FULL STEAM

SUNLESS SKIES

bit.ly/3gncuj6

→ Failbetter's flying locomotive sandbox got a huge free update, inspiring me to return to its peculiar universe. The *Sovereign Edition* is full of new stories, progression changes, and a new train, giving you an excuse to enjoy some of the best game writing around.

QUICK DRAW

GRIFTLANDS

bit.ly/3D3McMN

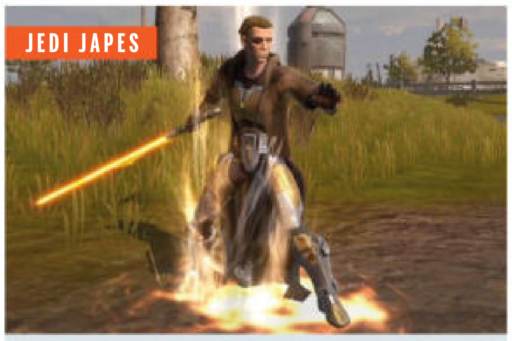
→ It's impossible to escape deckbuilding roguelikes, but with *Griftlands* you won't want to. Typical of Klei's games, it's a charismatic looker, with a creative deckbuilding system that lets you negotiate and talk your way out of trouble as well as beat people up.

DEAD GOOD

PHASMOPHOBIA

kineticgames.co.uk

→ Wandering around an empty house while shouting someone's name doesn't sound like a good time, but *Phasmophobia* finds a way. A romp where you talk to ghosts, it's best played with some friends, each yelling at someone who's more likely to kill you than respond.



JEDI JAPES

STAR WARS: THE OLD REPUBLIC

swtor.com

→ I've been returning to this MMO for a decade, seduced by the excellent Star Wars yarns and the chance to play dress-up with my Sith Inquisitor. With a new expansion coming this year that completely changes the relationship between class and story, it's an exciting time for the old RPG.

NOBLE INTENTIONS

CRUSADER KINGS III

crusaderkings.com

→ There's some DLC on the way that lets you hang out in your throne room, but you should never need another reason to play something that's simultaneously the best RPG and best strategy game around. I'll never stop banging on about *CKIII*, because it's the greatest.

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A4 SCREEN!

KEEPS OLD PRINT JOURNOS OFF THE STREETS!

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